

MOTOR AGE

Vol. LIII

Reg. U. S. Pat. Off.
Established 1899

No. 1

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CONTENTS

Comparative Prosperity. By C. A. Musselman.....	9
News of the Industry and Trade	10
What's Coming in Motordom	11
Dibble Gabble. By Lewis C. Dibble	12
Close-Ups and Low-Downs. By Sam U. L. Sparks..	13
Events Scheduled for New York Show Week	14
Jest-A Bit Cynical. By Sherman Swift	15
John Cleary Says—.....	16
The Month of January in Motor Age	17
The Automotive Outlook for 1928. By Norman G. Shidle	18
More Powerful Engines and Lower Bodies Feature 1928 Design. By C. Edward Packer	20
The Disorders of a Hand-to-Mouth Diet. By Sherman Swift	22
Keep Books for "Keeps." By George T. Hook....	24
List of New York Show Exhibitors	26
Four-Wheel Brakes and New Bodies Feature Pontiacs for 1928. By A. F. Denham	28
Studebaker Adds a Straight Eight Series to 1928 Line.	30
Hudson, Essex Enter 1928 With Body Changes	32
Auburn Features New Frame	33
Gardner Betters Performance. By M. Warren Baker	34
Oldsmobile Brings Out Entirely New Car. By A. F. Denham	36
Four-Wheel Brakes for Chevrolet	38
Standard Six, Low-Priced Willys-Knight	40
Falcon Enlarges Bodies	41
Smaller Straight Eight Added by Marmon for 1928....	42
Stutz Places Emphasis on Exclusive Color Jobs. By M. Warren Baker	44
Hupp Augments Line With Smaller Eight	46
Unusual Body Construction in Dodge Victory Six....	49
A Gallery of 1928 Automotive Art	50
1928 Specifications and Statistical Data	56-72
Passenger Car Serial Number Guide	56
Prices and Weights of Current Passenger Car Models	62
Body and Equipment Specifications of 1928 Cars	65
Price Range of 1928 Passenger Cars.....	67
Mechanical Specifications of 1928 Passenger Cars	69
Purrs and Pings	74

MOTOR AGE is published every Thursday by

CHILTON CLASS JOURNAL COMPANY

Chestnut and 56th Streets, Philadelphia, Pa.

C. A. MUSSELMAN, President and General Manager
 J. S. HILDRETH, Vice-Pres. and Director of Sales
 W. I. RALPH, Vice-Pres. DAVID BEECROFT, Vice-Pres.
 A. H. VAUX Secretary and Assistant Treas. H. J. REDFIELD Treasurer
 Cable Address Autoland, Philadelphia Telephone Sherwood 1424

OFFICES

New York—U. P. C. Bldg., 239 W. 39th St., Phone Pennsylvania 3080
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 Detroit—710 Stephenson Bldg., Phone Northway 2090
 Cleveland—540 Guardian Bldg., Phone Main 6860
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Owned by United Publishers Corporation, 239 West 39th Street, New York; ANDREW C. PEARSON, Chairman, Board of Directors; FRITZ J. FRANK, President; C. A. MUSSELMAN, Vice-President; F. C. STEVENS, Treasurer; H. J. REDFIELD, Secretary.

SUBSCRIPTION RATES: United States, Mexico and U. S. Possessions, \$3.00 per year; Canada, \$5.00 per year; All other countries in Postal Union, \$6.00 per year; Single Copies, 35 cents.

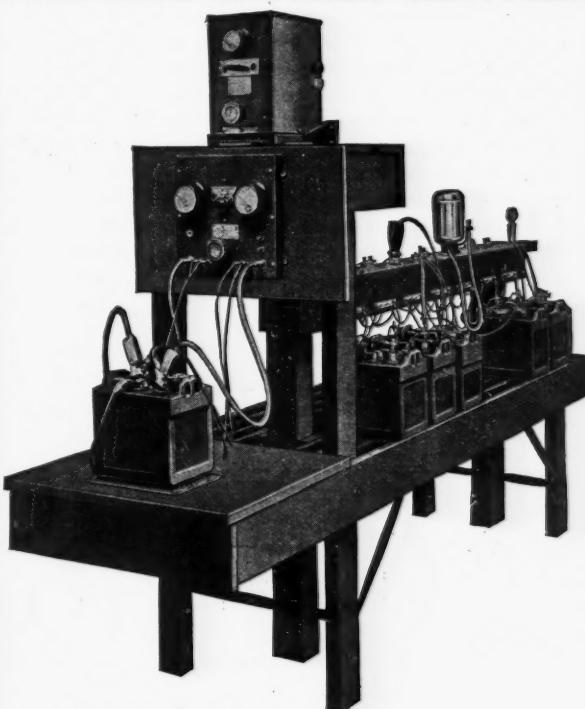
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Member of the Audit Bureau of Circulations
 Member, Associated Business Papers, Inc.

Subscriptions accepted only from the Automotive Trade
 Entered as Second Class Matter, June 2, 1927, at the Post Office at Philadelphia, Pa.,
 under Act of March 2, 1879

WHY HESITATE?

Now you can buy a
COMPLETE BATTERY SERVICER



This unit will start you in the battery service business—and it's a PROFITABLE BUSINESS.

It includes:

B & R TWIN-SIX 1-DAY CHARGER
 4-Meter Discharge Test Set
 Battery Connectors
 Hydrometer
 Battery Voltmeter
 Distilled Water Container
 Substantial, handsome bench

All built up into one unit that lets you test batteries—point out to owner if his battery will take a recharge, so that you sell him a new battery if it won't—has connectors built in as part of unit—lets you test them quickly as the batteries take the charge—occupies only 35 square feet of your floor space.

THESE 35 SQ. FT. WILL PAY YOU BIGGER DIVIDENDS THAN ANY OTHER SPACE OF THE SAME SIZE IN YOUR SERVICE STATION.

Now Burton & Rogers
 Mfg. Co., Boston, Mass.,
 has a complete new line
 of electrical test equip-
 ment. Send for details.



VAR

v.53' Ja-Mr'28
MOTOR AGE

January 5, 1928

THE TOP-NOTCHERS make their own "breaks"—it takes a working head as well as a fighting heart to stay in the first flight in this day of competitive crowding. The penalties of leadership are often as great as the prizes—to stay out in front requires a measure of merit beyond dispute.

The Chicago Tribune has won its title as advertising champion of the world by virtue of its singular supremacy among advertising media. It has been awarded this accolade by the common consent of the greatest number of investors in public good will—the advertisers of America. No other newspaper in the United States has been commissioned to carry so many selling messages to such a great number of potential buyers.

The Tribune's triumphant total for 1927

All over the country other great newspapers have challenged the position of the World's Greatest News-



paper—sought to exceed its advertising lineage even though they could not equal its commanding circulation.

There are newspapers in the world which have larger circulations than The Chicago Tribune. England, France and Japan have such papers but their advertising lineage cannot be compared to The Tribune's giant total.

There are national magazines which surpass The Tribune in number of readers, but during the first eleven months of 1927 The Tribune printed more than double the millions of advertising which appeared in the leading national magazine. Measured by any conclusive criterion of championship, The Tribune stands alone.

And, obviously, The Tribune is supreme in Chicago

Champion of the world means champion of Chicago too! In 1927 The Tribune led its

nearest contender by ten million lines of advertising. And The Tribune is first in circulation as it is in lineage—its daily city and suburban circulation alone is greater than the total circulation of any other Chicago daily. Its Sunday circulation in city and suburbs is nearly a quarter of a million greater than the city and suburban circulation of any other Chicago paper, daily or Sunday.

The Tribune is the advertising champion of the world because it is the dominant newspaper in the world's richest market. The calibre of The Tribune's leadership is due to the character of its readers—their intelligence, purchasing power, and responsiveness to Tribune advertising. The conservation of net profits today lies in the cultivation of the right prospects in the right market and The Tribune is indisputably supreme in its access to the great Chicago territory with its annual spending power of sixteen billion dollars. For profit protection in 1928, concentrate in The Tribune.

Chicago Tribune

THE WORLD'S GREATEST NEWSPAPER

November Circulation: 783,850 Daily; 1,186,487 Sunday

CHAMPION OF THE WORLD!

VIA REGIA
SOCIETAS
NAUTICA

In 1927 The Chicago Tribune carried more lines of advertising than any other publication on earth. In Chicago The Tribune led the second newspaper by *Ten Million Lines.*

AH
Tech

MOTOR AGE

VOLUME LIII

Philadelphia, Pa., Jan. 5, 1928

NUMBER 1



Comparative Prosperity

By C. A. MUSSELMAN

President, Chilton Class Journal Company,
Publishers of MOTOR AGE

HUMAN nature is so constituted, it seems, that all comparisons are made with maximums when they relate to business volume and profits. If the big figures are not constantly surpassed, the net result is considered poor, and everyone starts to forecast calamities.

Possibly there is no better exemplification of this phenomenon than what took place in the last quarter of 1927 in the automobile business.

Although for the twelve-month period the majority of the manufacturers showed a profit in excess of previous years, the fact that the last quarter recorded a shrinkage for some companies has loosened the wail of pessimists and "I-told-you-so" prophets.

Isn't this a good time to check conditions in order to check the men who like to predict unfavorable conditions?

Let us start with the bankers. While, as a rule, they are broad-minded men, we nevertheless find among them types so engrossed in figures that their only outlook is through an adding-machine periscope. They are not real gamblers on America. Their success has been largely because they have been dragging along with the tide rather than rowing upstream.

At present money rates are low. Some of these shortsighted bankers may feel that if the country were less prosperous their personal profits would increase. If such is the case, the thoughts they express are their sentiments rather than their real opinions.

With the ever-increasing export trade we are finding new fields for automobiles and automotive products to stimulate manufacture at home. It may also have been that

the market was oversold in 1926 and, therefore, undersold in 1927. Quite a few students of the industry believe this to be the case. If so, 1928 will be a record-breaking year, because industry, like people and metals, becomes fatigued when it has been overworked, and for that reason 1927 may have been tired because of 1926's excessive production and sales activity.

If you want to be a pessimist you can have very disconcerting thoughts at the present moment, because they include the presidential campaign; the possibility that the wheat, corn or cotton crops may not be good; rumors of price cuts; mortality among dealers; unsettled conditions in Europe, and a list of other troubles on the other side of the bridges which we never cross.

But if we want to be an optimist we can see in America the greatest country in the world; a land possessing the wealth of the world; manufacturing superiority; less labor strife than ever before; greater purchasing power than at any time; larger savings; lower rates of interest for money; the curve of wealth climbing perpendicularly, and, last but not least, increased results per hour from man's labor based on all that modern science has brought to America. As labor creates wealth, the ability to increase means growing prosperity.

As Charles M. Schwab has often stated: "The man who is a bull on America is the man who is successful in business."

We therefore have every reason to be thankful that the outlook for 1928 is unusually encouraging. The year will be largely what we make it. The optimist will go forward. The pessimist will either stand still or go backward.

Raskob Forecasts Biggest Car Year

GM Finance Head Optimistic Over Trade Outlook for Coming Year

WASHINGTON, Jan. 4—A prediction that general business conditions during 1928, based largely upon improved agricultural conditions will show a marked improvement, is made by John J. Raskob, chairman of the Finance Committee of General Motors and vice-president of E. I. duPont de Nemours, who is chairman of a committee of 30 business men who have just completed a survey of 1928 business prospects for the United States Chamber of Commerce.

Mr. Raskob's summary of the outlook is as follows: "I expect that 1928 will be a better business year than 1927. In fact, there is good reason to anticipate that 1928 will witness the greatest prosperity our country has ever enjoyed. There is little, if any, inflation anywhere, an abundance of credit, a material increase in farm purchasing power as a result of good crops and prices, generally small inventories, and at least a moderate upward trend of the general price level with the greatest strength in recent months occurring in agricultural prices.

"These are all factors favorable to business expansion. I believe that 1928 will establish a new record of automobile production and sales."

Black & Decker Acquires Van Dorn Electrical Tool

CLEVELAND, Jan. 4—Announcement has just been made that the Van Dorn Electric Tool Co., manufacturer of portable electric tools, has been acquired by the Black & Decker Manufacturing Co. of Towson, Md. There will be no changes in personnel of the two organizations, according to a statement from the Black & Decker Co.

Whippet Cuts Price

TOLEDO, OHIO, Jan. 4—Whippet price cuts announced today by Willys-Overland, Inc., range from \$90 to \$200 on the various models, the major cut being made in the price of the convertible coupe which is now priced lower than the corresponding Ford model.

The new prices are as follows: Four-

*\$200,000 a Year
or Salesmanship
Made Easy*

Lesson No. 8. Keeping Fit



ASK any floor-walker, policeman, doorman or motorman what brand of trousers he wears. He'll proudly answer, "Tripper's Triple-seat, 'they wear where the wear comes.'" That this great army of standees has been sold on the merits of this pant is due entirely to the efforts of O. Hava Sete, pictured above, a devotee to the ideal of keeping fit.

Every morning at 5.30 Mr. Sete appears at the company's gymnasium where, under the supervision of Mr. Tripper (second from left) he is put through a four-hour period of shutting-up exercises. "Shutting-up exercises are the great need of the salesman," says Mr. Sete. "That, coupled with a larger understanding, will carry him forward to greater feats," he continued, glancing down at his own well-developed, though somewhat scrambled pedal extremities.

door sedan, \$585; two-door sedan, \$535; Coupe, \$535; roadster, \$525; touring, \$455; convertible coupe, \$445.

Royal Race Team May Come Here

England Said to be Planning Entry for Next Grind at Indianapolis

INDIANAPOLIS, IND., Jan. 1—England may send a Royal racing team to this city to compete in the international 500-mile race at the Motor Speedway May 30.

The English racing colors has been consistently spattered in the mud, dust, oil and exhaust fumes of faster cars for so long that even the conservative English are said to be objecting. Newspapers, magazines and motoring enthusiasts throughout England are clamoring for a change and it seems likely that with such a forward movement with plenty of time to prepare, England for the first time in years will have a representative team at Indianapolis next May.

W. Douglas Hawkes was the last Englishman who drove a British car at Indianapolis. It was a Bentley and the genial Hawkes, although a jolly fellow, couldn't make it go fast enough to get out of the way of the faster American cars.

But this condition is to change. "It is almost as though this situation were a national affront," says the leading British motoring paper, demanding that a team be made up by "royal grant" to compete in the classic.

"A successful racing team is a national asset," the paper says.

Marmon Names Three as Regional Managers

INDIANAPOLIS, Jan. 2—Completion of another step in the sales expansion program of the Marmon Motor Car Co. is announced by H. H. Brooks, Marmon general sales director with the appointment of Louis Logie, R. B. Thornton and W. W. Stillson as regional managers.

Tire Production Off

NEW YORK, Jan. 1—Production of all types of pneumatic casings was less than total shipments during October, resulting in a decreased inventory, with a reverse condition true with regard to all types of inner tubes, according to the Rubber Association of America. Inventories of balloon casings and inner tubes both declined.

Next Week: A Complete Review of the New York Show

Jackson Stutz Vice President

INDIANAPOLIS, Dec. 28—Edwin B. Jackson, for many years president of the Packard Co. of New York and later vice-president of the Willys-Overland Co., has been appointed a vice-president of Stutz Motor Car Co. of America, Inc. He will assume charge of the eastern zone, making his headquarters in New York at the Stutz New York company.

All matters of sales policy in the territories of New England, New York City, Philadelphia, Washington and the East Coast will be entirely in Mr. Jackson's hands. The eastern business of the company has assumed such importance that it justifies the entire attention of a major executive, said E. S. Gorrell, vice-president, and the appointment of Mr. Jackson assures dealers intelligent cooperation.

Mr. Jackson's first connection with the industry was as manager of John Wanamaker's automobile department in New York City, marketing the Ford in its early history.

Later he spent nine years with the Packard organization in New York and Philadelphia, resigning as president of the Packard Co. of New York to accept the position of vice-president in charge of sales of the Willys-Overland Co., which he held for five years.

Now With Stutz



Edwin B. Jackson

MR. JACKSON is now in charge of the Eastern zone for Stutz, with headquarters at the New York office

Kissel Will Exhibit the "White Eagle"

HARTFORD, WIS., Jan. 4—The new Kissel White Eagle to be exhibited at the shows is the Kissel speedster finished in Ivory White, and powered with the improved Kissel straight eight engine which develops 115 hp., the car has a speed of 100 m.p.h.

Chrysler Big Men Secret Disclosed

PHILADELPHIA, Jan. 3—The presence of so many big men on the executive staff of Chrysler Sales Corp. has long been a topic of comment in the industry. The secret was revealed to newspaper and business paper men at a "get-together" in New York last week. It's the size of the luncheons they eat. Even anemic editors might grow burly on a regular diet of individual gargantuan steaks.

Walter P. Chrysler, with absolutely nothing up his sleeves, was the gracious host and only speaker. He intimated that a fair degree of success had come to Chrysler since the last luncheon four years ago, when the Chrysler "70" was launched. He magnanimously attributed this success to his organization.

Big Bill Mattimore, who recently busted into the editorial columns of the *Literary Digest*, introduced Mr. Chrysler with a few well-chosen words.

Joe Fields was at home greeting the editors and advertising men with characteristic affability. He knew them all.

Lee Anderson, Becky Scharps, Bun Wilson and Bob McDonald helped to keep things stirred up.

A good time was had by all.

What's Coming in Motordom

SHOWS

Akron, Ohio, M. O'Neil Bldg.	Feb. 4-11	Newark, Armory	Jan. 14-21	*Scranton, Pa., Armory	Jan. 23-28
Atlantic City, Young's Million Dollar Pier	Jan. 21-28	*New York, National Automobile Chamber of Commerce, Grand Central Palace	Jan. 7-14	Sheboygan, Wis., Eagles Auditorium	Feb. 6-12
*Baltimore, 5th Regiment Armory	Jan. 21-28	Niagara Falls, N. Y., Rossandy Garage	Jan. 23-28	Sioux City, Iowa, Armory	Feb. 22-25
*Boston, Mechanics Bldg.	March 10-17	Omaha, Neb., Municipal Auditorium	Feb. 20-25	Sioux Falls, S. Dak., Coliseum	March 28-31
Brooklyn, Brooklyn Motor Vehicle Dealers Association, 23rd Regiment Armory	Jan. 21-28	Orlando, Fla., Coliseum	Feb. 9-11	Spokane, Wash., State Armory	Feb. 15-18
*Buffalo, 17th Armory	Jan. 14-21	Ottawa, Can., New Coliseum	Feb. 6-11	Springfield, Ill., State Arsenal	March 7-10
Camden, N. J., Convention Hall	Jan. 30-Feb. 4	*Philadelphia, Commercial Museum	Jan. 14-21	Springfield, Mass., Municipal Auditorium	Feb. 27-March 3
*Canton, Ohio, Land O' Dance	Feb. 12-19	Pittsburgh, Pa., Motor Square Garden	Jan. 21-28	Springfield, Ohio, Memorial Hall	Jan. 16-21
*Chattanooga, Tenn., Municipal Auditorium	Feb. 13-18	Plainfield, N. J., Amusement Academy	Feb. 18-25	*St. Louis, City Market Bldg.	Feb. 6-11
*Chicago, National Automobile Chamber of Commerce, Coliseum	Jan. 28-Feb. 4	Providence, R. I., Cranston Street Armory	Feb. 11-18	Syracuse, State Armory	Feb. 6-11
*Cincinnati, Music Hall	Jan. 15-21	Rochester, N. Y., Edgerton Park	Jan. 23-28	*Tampa, Fla., Davis Island Coliseum	March 29-April 5
*Cleveland, Public Auditorium	Jan. 21-28	Salon, Automobile Salon, Inc., Hotel Drake, Chicago	Jan. 28-Feb. 4	*Toledo, Civic Center Garage	Feb. 6-11
*Columbus, Auditorium	Feb. 6-11	Salon, Automobile Salon, Inc., Hotel Biltmore, Los Angeles	Feb. 11-18	Trenton, N. J., State Armory	Feb. 18-25
Deadwood, S. D., Auditorium	Feb. 20-25	Salon, Automobile Salon, Inc., Palace Hotel, San Francisco	Feb. 25-March 3	Troy, N. Y., State Armory	Jan. 21-28
Denver, Auditorium	Feb. 27-March 3	San Bernardino, Cal., National Orange Show Bldg.	Feb. 16-26	*Washington, D. C., Auditorium	Jan. 28-Feb. 4
Des Moines, Coliseum	Feb. 20-25	San Diego, Calif.	March 10-15	Wichita, Kans., Municipal Forum	Feb. 6-11
*Detroit, Convention Hall	Jan. 21-28	*San Francisco, Civic Auditorium	Jan. 28-Feb. 4	Wilmington, Del., duPont-Biltmore Hotel	Jan. 30-Feb. 4
Elmira, N. Y., State Armory	Jan. 30-Feb. 4			Worcester, Mass., State Armory	Feb. 9-11
Evansville, Ind., Coliseum	Feb. 26-March 3				
Grand Rapids, Mich.	Feb. 6-11				
*Harrisburg, Pa., Emerson Brantingham Bldg.	Jan. 28-Feb. 4				
Hartford, Conn., State Armory	Feb. 18-25				
Indianapolis, Auto Show Bldg.	Feb. 13-18				
*Kansas City, Mo., American Royal Bldg.	Feb. 11-18				
Kinston, N. C.	April 9-13				
Lansing, Mich.	Feb. 6-11				
Los Angeles	March 3-11				
*Louisville, Ky., Jefferson County Armory	Jan. 16-21				
*Milwaukee, Auditorium	Jan. 14-21				
Minneapolis, Municipal Auditorium	Feb. 4-11				
*Montreal, Canada, Motordrome	Jan. 21-28				
Muskegon, Mich., Armory	Feb. 14-18				
Nashville, Tenn.	Jan. 16-21				

Watch For It!

Feb. 18—Statistical Issue—Automotive Industries.

CONVENTIONS

Automotive Equipment Association, Grand Hotel, Mackinac Island	June 10-16
Michigan Automotive Trade Association, Annual Meeting, Hotel Statler, Detroit	Jan. 25
National Automobile Dealers Ass'n, Annual Meeting, Palmer House, Chicago	Jan. 31-Feb. 2
National Automotive Parts Association, Hotel Statler, Detroit	Jan. 25-27
Society of Automotive Engineers, Annual Meeting, Detroit	Jan. 24-27

RACE

Daytona Beach, Fla., series of stock car races and world's speed trials

Feb. 15-23



By Lewis C. Dibble

Q WE'VE come to the conclusion that Ed Grimm, major domo of advertising at Chevrolet, knows his onions when it comes to automobiles. Last week Ed told us the public was going to be spectacularly surprised with the new Chevrolet. He gave us the impression that the car would be about the zippiest thing on wheels in the lower priced brackets. And after seeing it on New Year's Day we came to the conclusion that Ed was just a bit too modest in his statements.

* * * *

THIS say there will be so many nifty new models at the New York Automobile Show that Sam Miles will have to hire a statistician to keep track of them.

* * * *

Q IF the new style which Dick Leavell of Dodge Brothers has set for automobile publicity men is generally adopted, barbers and razor companies might as well fold up their tents and go out of business. When Dick came back to Detroit the other day from a protracted trip through the West, he looked more like Roger Babson than a publicity man. The reason was that Leavell cultivated a VanDyke beard. And instead of shaving it off he insists that all publicity men follow suit. And, we ask, what could be funnier?

* * * *

WITHOUT doubt Paul Hoffman takes front rank among the diplomats of the country. Paul is the person who made it possible for the public to meet The President on New Year's Day. And Studebaker's new senior line made such an indelible impression on all who saw it, that without doubt if there were an election tomorrow the car would be sent to the White House by popular acclaim.

* * * *

Q BELIEVE it or not, Roger Angstman expects to do a bumper business in 1928. And that's no hooey. Roger is now general sales manager of the Liggett Spring & Axle Co. and he showed me a bumper the other day which he says absolutely cannot rattle. The reason is that all principal bolts are floated in rubber mountings. And what's more, the main bar is pressed from a solid sheet of steel.

* * * *

AN energetic and fast pair of workers are O. M. Banfield and E. H. Warren. It's only seven years ago that they laid the modest foundation for the Standard Auto Batt Co. by opening up a business in a barn in Flint. Success has come so thick and fast that they have since been compelled to move on six occasions to larger quarters. And now they have bought the Mason Motor Truck Co. plant from W. C. Durant and to celebrate the event they delightfully entertained their friends in the industry at a dinner the other night at which we all had a perfectly wonderful time.

* * * *

A. BROWN BATTERSON tells me that Kingston Forbes, Buick style engineer, is going to give the visitors from the tall woods something really worth feasting their eyes on, at the New York Automobile Show. Forbes, he says, has built a Rainbow chassis. To describe it here would take reams of space and anyway it's such a colorful story that we suggest you look for it in Grand Central Palace.

* * * *

PROBABLY one of the best informed men on Abraham Lincoln in the automotive industry is Fred Black, director of advertising of the Ford Motor Co. Fred, it appears, has made a protracted study of the history of Lincoln and he became so engrossed in the work that, among other things, he turned sculptor to make a bust of the President which friends say is a remarkable piece of art.

* * * *

IT looks as though everybody who has much to do with the automobile business is packing up the old family valise for a trip down to New York for the automobile show. We have heard so many men say they'll be there that we wonder where they all plan to stay. At any rate drop around to see us. The Chilton Class Journal Co. staff will bivouac at the Hotel Commodore.

Australian Mark Made by Hudson

American Car Clips Half Hour From Melbourne-Sydney Record

MELBOURNE, AUS., Jan. 1—Regardless of the fact that they hit a fence when traveling at 80 m.p.h., J. Buckley and L. Bartlett, in a Hudson, lowered the four-year old Melbourne to Sydney record recently by 39½ minutes.

When the late A. V. Turner covered the distance between the two cities in February, 1924, in 12 hours 34 minutes, it was considered that the time would stand for many years. Since then, so many attempts have failed that people began to think that it would never be broken.

The drive, therefore, will go down as one of the finest of its kind ever accomplished in Australia.

Buckley and Bartlett set out from the Victorian capital at 4.5 a. m. so as to miss the city's early morning traffic.

Seymour, 61 miles, was reached in 62 minutes, and Albury, 196 miles, in 200 minutes.

This phenomenal speed was maintained without incident to Gundagai, the 264 miles being covered in 265 minutes.

A few miles out of Bredalbane, when the speedometer was showing 80 m.p.h., a V gutter and a bad corner were met simultaneously. The car leaped into the air, and crashed side on into a fence, smashing a back wheel, and a shock absorber. Fifteen minutes afterwards the speedometer was once again registering 80 m.p.h., and Goulburn, 441 miles, was reached at 1.30 p.m.

This made their time 11 hours 55½ minutes, an average speed for the 576 miles of 48.4 m.p.h., all stops inclusive.

La Salle Prices Lowered

DETROIT, Jan. 4—New prices for the entire La Salle line, announced today by the Cadillac Motor Car Co., are as follows:

Two-passenger roadster \$2,485, four-passenger phaeton \$2,485, sport phaeton \$2,975, two-passenger coupe \$2,450, two-passenger convertible coupe \$2,550, four-passenger victoria \$2,550, five-passenger sedan \$2,495, five-passenger town sedan \$2,495, five-passenger imperial \$2,775, seven-passenger sedan \$2,775, seven-passenger imperial \$2,875, two-passenger business coupe \$2,350, five-passenger family sedan \$2,350, five-passenger coupe \$2,625, five-passenger cabriolet sedan \$2,675, seven-passenger family sedan \$2,575.

Continental Will Give Away Sedan

Engine Maker Offers Novel Contest for Visitors at Shows

DETROIT, Jan. 4—Continental Motors Corp. announces that it will give away a Continental equipped sedan of one of the most desirable makes in connection with the New York and Chicago automobile shows. The contest is not only open to all persons attending the shows, but to every man, woman and child in the United States and Canada, except persons connected with Continental Motors, directly or indirectly, or with automotive trade publications.

The prize will be awarded to the person who submits the neatest and most accurate list of cars, trucks and buses and other road vehicles produced today and equipped with Continental engines, and who in addition offers the best sales slogan of not more than five words for Continental motors.

Contestants may obtain booklets explaining the contest at the New York or Chicago show or by writing the contest manager, Continental Motors Corp. All booklets must be mailed to the contest manager at the Detroit offices before midnight of Tuesday, Feb. 14.

Judges for the contest will be men who are not connected with Continental Motors and who are widely known for their integrity and automotive knowledge. Names of the judges and further developments concerning the contest will appear in Continental advertising in the daily newspapers prior to and during the national automobile shows.

Packard Prices Down

DETROIT, Jan. 3—Price reduction of from \$75 to \$700 have been announced by the Packard Motor Car Co. as follows:

Seven-passenger sedan was \$5,150, now \$4,450; reduction \$700; seven-passenger sedan limousine was \$5,250, now \$4,550; reduction \$700; two-passenger convertible coupe was \$4,950, now \$4,250, reduction \$700; two-passenger coupe was \$4,800, now \$4,150, reduction \$650; five-passenger club sedan and four-passenger coupe were \$4,950, now \$4,450, reduction \$500; two-passenger runabout and five-passenger phaeton were \$3,975, now \$3,875, reduction \$100; seven-passenger touring was \$4,050, now \$3,975, reduction \$75.

These reductions are said to be made possible by the largest year of business in the history of the company.

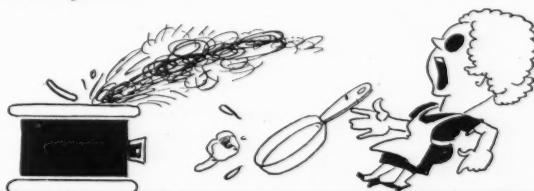
CLOSE UPS AND LOW DOWNS

By SAM U. L. SPARKS

NOT having gas here at Sparks Corners, the missus does her cooking on a oil stove. About a year ago she was having trouble with it and I told Bill Somers, the hardware man from which she bought it. Bill said the next time the man from the factory came to town he would send him up to look at it, and he did.

The guy from the factory spent half an hour putting it in ship-shape order and showed the missus a stunt or two about operating it, and he didn't charge nothing for his services, even and although we had the stove for going on eleven years.

It made me think, if they can do that with a oil stove, why hadn't a customer ought to expect as much with a automobile—not eleven years, but maybe eleven months after he buys it?



Well, last week Bill Somers got in a lotta new oil stoves, and this same guy from the factory calls on the missus and asts her to come down to Bill's store and see the fine new stoves, some of them finished in gray lacquer, like a automobile, and some finished in white porcelain, like the latest gas or electric ranges, and so I am going to buy the missus one of them ranges for Christmas.

Did it pay that guy to spend half a hour fixing up the old stove a year ago?

* * * *

I see where one of them congressmen is looking for a seat. As they would say in Pennsylvania, "Vare shall he sit?"

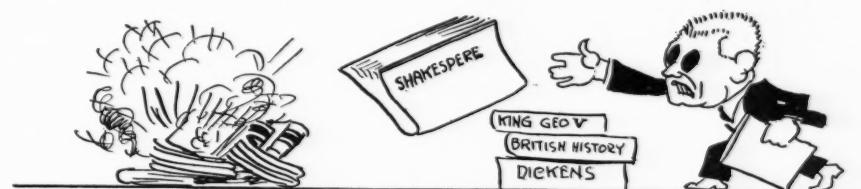
Maybe if they would fix up a parking space somewhere in the chamber they could stay in their cars and they wouldn't have to flash none of them S.R.O. signs on newcomers.

* * * *

I know a certain guy which is a great collector of antiques when he ain't spending a couple hundred million dollars bringing out a new car. If he wants to get volume collection, he might come here to Sparks Corners and collect some of the antiques which is running around on wheels.

* * * *

Me and Big Bill, the mayor of the Windy City, belongs to the same school, if any. They may be a certain amount of bull in what we say, but you can always bet it ain't Johnny Bull. What I mean, it's straight U. S. language, or sort of what you might call "reverse English."



It looks like Harold is trying to get on the right side of the boss. You maybe remember I am trying to learn Harold something about the automobile business. Well, anyhow, the other day he comes in and says, "Mr. Sparks, I heard a highly complimentary remark about you."

"Well, Harold," says I, "that hadn't ought to surprise you, but what was it?"

"I heard a couple of the consuming public talking about cars," Harold answers, "and one of them said he didn't care what car Sam Sparks was handling, he'd feel safe in investing his money in it, because Sparks stands back of any car he sells."

I don't like to talk about myself, but don't that bear out what I told you about how it pays to follow up your buyers and see that they are satisfied?

Paige-Detroit Co. In Name Change

**Will Vote on Move Soon:
Sales Organization Greatly
Strengthened**

DETROIT, Dec. 31—A special meeting of stockholders of Paige-Detroit Motor Car Co. has been called for Jan. 5 to act on a proposed change in the name of the company from its present form to the Graham-Paige Motors Corp. The change in name is proposed to identify the company and its product more fully with the three Graham brothers who are now in control.

Entering 1928, the effect of the management of the Graham brothers upon the company will be more distinct. Since the purchase of control in May this year, the brothers have been perfecting plans for the company which they are now prepared to introduce. These will include changes in the product, announcement of which will be made for the New York show, and also general changes in the direction of the business.

The sales organization has been greatly strengthened in the past six months and an extensive sales and advertising campaign will be launched in support of the sales policies of the company.

More Car Manufacturers Enter Motor Truck Field

NEW YORK, Jan. 5—Exhibits at the national show opening here on Saturday will reveal a trend of more than passing interest. That is the entrance of more passenger car makers into the truck field.

One such occurrence has already been recorded in the announcement by the Stutz Motor Car Co. of America, Inc., that it will market the Pak-Age-Car. Two other makers, it is definitely known, will make known their intentions to enter the truck field during the show. Both are among the industry's leaders.

Exclusive of the as yet unnamed two, the following 11 passenger car companies are factors in the truck market: Chevrolet, Dodge (Graham), Ford, Kissel, Nash, Pierce-Arrow, Reo, Star, Studebaker, Stutz (Pak-Age-Car), and Velie.

Exports Increase

WASHINGTON, Jan. 3—All previous exports of automobile parts and accessories will be broken this year, according to preliminary figures compiled by the United States Department of Commerce.

Meetings and Events Scheduled for Week of New York Automobile Show

FRIDAY, JAN. 6

Stutz Motor Car Co. of America, Inc., Salesmen's and Dealers' Meeting, Branch Office 8.00 p. m.

SATURDAY, JAN. 7

Hupp Motor Car Corp., Luncheon and Meeting, every day, Commodore Hotel. Studebaker Corp. of America, Dinner, Hotel Plaza.. 7.00 p. m.

MONDAY, JAN. 9

American Automobile Association, Contest Board, Roosevelt Hotel 10.00 a. m.

National Automobile Dealers Ass'n Eastern District Convention, Commodore Hotel 10.00 a. m.

Oakland Motor Car Co., Meeting, Roosevelt Hotel. 1.00 p. m. Banquet, Roosevelt Hotel. 6.30 p. m.

Rubber Association of America, Inc., Meeting and Luncheon, Commodore Hotel 10.00 a. m.

Dinner, Commodore Hotel. 7.00 p. m. Society of Automotive Engineers, Metropolitan Section Auto Show Dinner-Meeting, Commodore Hotel 6.30 p. m. to 8.00 p. m.

John N. Willys' Luncheon to Trade and Newspapermen, Biltmore Hotel 12.30 p. m.

TUESDAY, JAN. 10

American Automobile Association, Board of Directors Meeting, Roosevelt Hotel. 10.00 a. m.

National Association of Automobile Show and Association Managers, Luncheon, Waldorf-Astoria.... 1.00 p. m.

National Automobile Chamber of Commerce Banquet, Commodore Hotel 6.30 p. m.

Packard Motor Car Co., Meeting and Luncheon, Packard Distributors and Dealers, Biltmore Hotel 9.00 a. m. to 5.00 p. m.

WEDNESDAY, JAN. 11

American Automobile Association, Bus Division, Roosevelt Hotel 10.00 a. m.

Auburn Automobile Co., Luncheon, Commodore Hotel 1.30 p. m.

Cadillac Motor Car Co. Dinner, Hotel Astor 7.00 p. m.

Chevrolet Motor Co., Business Meeting, Mecca Temple 1.30 p. m.

Banquet, Commodore Hotel 6.30 p. m.

H. H. Franklin Mfg. Co., President's Luncheon, Commodore Hotel 1.00 p. m.

Gardner Motor Co., Luncheon and Meeting, Hotel Belmont 1.00 p. m.

Jordan Motor Car Co., Luncheon, Biltmore Hotel 1.00 p. m.

Motor & Accessory Manufacturers Ass'n, Annual Meeting, Hotel Astor.... 2.30 p. m.

Banquet, Hotel Astor.... 7.00 p. m.

Nash Motors Co., Warren-Nash Motor Corp. Dealer Meeting.

Olds Motor Works, Business Meeting, Mecca Temple.. 1.00 p. m.

Show Dinner, Hotel Biltmore 7.00 p. m.

Packard Motor Car Co., Meeting and Luncheon, Packard Distributors and Dealers, Biltmore Hotel 9.00 a. m. to 5.00 p. m.

Paige-Detroit Motor Car Co., Luncheon, Roosevelt Hotel.... Noon

Peerless Motor Car Corp., Dinner, Commodore Hotel. 6.30 p. m.

THURSDAY, JAN. 12

Overseas Automotive Club, Dinner, Hotel Astor 6.30 p. m.

Society of Automotive Engineers, Dinner, Hotel Astor 6.30 p. m.

Velie Motors Corp., Luncheon and Business Meeting, Commodore Hotel.. 1.00 p. m.

Willys Overland, Inc., Dealer Meeting and Banquet, Hotel Astor.

The nearest approach to the current year's exports was the year of 1923, when the total automotive exports aggregated \$55,768,743. Comparing the first 10 months exports with the exports for the first 10 months of last year, the current figures show an increase of 24.86 per cent this year.

Taxi Liability to Change

NEW YORK, Jan. 1—A short form automobile liability policy for insurance for taxicabs, which has been in vogue in New York to meet the requirements of the highway law, has been declared unsatisfactory by the insurance department of the state.

A statutory policy must be substituted for these forms on all risks by Feb. 1, 1928.

Reeves Predicts Gain in Business for New Year

NEW YORK, Jan. 4—Alfred Reeves, general manager of the National Automobile Chamber of Commerce, in a recent address before the Brooklyn Motor Vehicle Dealers' Association, predicted that 1928 would be an automobile year for power, performance, style and convenience, with production in excess of any previous 12-month period.

General trade conditions, Mr. Reeves said, continue on a good level, with employment maintained at a high level. Ford's return to production has opened up a long withheld demand. Money is easy and promises to continue so. Prices generally are steady, with little inflation.

New Body Line is Stearns' Offering

New Models Also Have Longer Wheelbase and Larger Cooling System

NEW YORK, Jan. 4—Introduction of a de luxe line of bodies features the 1928 offerings of the F. B. Stearns Co. Mounted on wheelbases of 137 and 145 in. respectively these larger six and eight-cylinder chassis employ the same mechanical units as are used on the standard lines. Frames, however, are of different designs, with the longer wheelbase. For maximum rigidity these are given a box section at the forward end. This section is produced by riveting together two channel sections with flanges facing inwards. Lightening holes are provided on the side of the frame adjacent to the engine to facilitate riveting. The reinforcing section begins at about nine in. back of the front spring pin and extends to about 20 in. back of the rear motor supports. Three and one-half in. across in section at the rear motor support, the frame side-rails taper in section forward and backward and are formed of 5/32 in. stock.

A total of eight cross-members are employed, four being of the tubular and four of the channel type, one of the latter being square in section. Changes have also been made in the rear spring hanger design by placing the shackles directly beneath frame side rails. Bumper mountings are formed integrally with spring horns.

Further changes include a larger radiator, with cooling capacity increased approximately 11 per cent, adoption of a two in. larger fan, redesigned steering mechanism to provide shorter turning radius on the 137 in. wheelbase models, and more room in the front compartments, achieved by moving the emergency lever forward.

Tripp-Secord & Co. Now Located in New Factory

DETROIT, Jan. 2—Tripp-Secord & Co. has recently moved into its new plant, a five-story, completely modern factory building at the corner of Woodbridge and Beaubien Sts.

Chevrolet Lowers Prices

DETROIT, Jan. 1—A price cut ranging from \$10 to \$80 is announced by the Chevrolet Motor Co. The new prices are as follows: Coach \$585, a cut of \$10; cabriolet \$665, a cut of \$80; sedan \$675, a cut of \$20; landau \$715, a cut of \$30; touring \$495, a cut of \$30, and roadster \$495, a cut of \$30.

Jest—a Bit Cynical

By Sherman Swift

HAVING been wished (by mail) a Happy New Year by the Amos Drug Co., the J. Smith Plumbers Supplies, Dunder and Blitzen, Grocers, The Last Chance Ice Cream Co., the newspaper boy, the baker, the coal man, the ash man, the telephone company and four National Banks, I want to congratulate those automotive dealers with whom I do business for having the good taste to refrain from sending cards, regardless of the advertising value that such cards might have.

I RECENTLY had it borne in on me by an incident that recalled vivid memories, how true the old adage is regarding there being nothing new under the sun. An acquaintance, somewhat largely congratulating the people of this country because of President Coolidge's recent refusal to endorse an educational week, was bitterly anathematizing those who were responsible for creating the various special weeks and days. He told me that the florists fostered Mothers' Day and the haberdashers Fathers' Day. Cold sordid commercialism was the basis of all such "days" and he didn't except Fourth-of-July. I listened to what he had to say and agreed with him until he wisely remarked that the movement was of recent origin. Then I told him that he was wrong. The whole thing started years ago when I was a child. A merchant in my home town who sold candies, pencils and similar scholastic material was the instigator. Having had a good demand for candy to be used in May baskets, he sold the children on the idea of June boxes and July bags, thus carrying the May basket season over for a couple of extra months. This same merchant was also responsible for selling two packs of cards instead of one to bridge whist players, ostensibly that time might be saved, but really because he wanted to double his sales of playing cards. Perhaps you thought that was new too. For some years now he has been in the strictly legitimate business of selling spare lamp bulbs, spare tires and similar necessities to car users.

AFTER some slight, though not entirely unexpected delay, the new Ford car is HERE. It is also THERE, if one be a believer in ads.

BACK in the days when cardamon seeds were considered necessary to a gentleman's Sunday evening toilet, the lucky child at Christmas got a candy cane, a mosquito netting bag of richly colored popcorn and a pair of knee-high rubber boots. This standard equipment was from time to time supplemented by a sled from the affectionate hands of a fond grandfather, or a reefer cut from Uncle Joe's greatcoat by Aunt Sallie. Last Christmas Eve I helped my neighbor play with his boys' toys. We had to test them out to see that they were working properly before arranging them around the tree. Among other things, we laid down as much trackage as the large living and dining rooms would accommodate, together with the signal towers, switches and so forth, loaded an unassembled airplane—costing \$14—on to the toy freight cars and by the aid of the electric engine, ran it over to the "airport," where we assembled it and tried, not too successfully, to fly it. Similar scenes were being enacted in every home on Drexel Hill.

The point of this somewhat aimless discourse is that people, because they can afford more, need more these days. That is why the diligent salesmen of washing machines, vacuum cleaners and electric refrigerators are making good salaries. That is why the salesmen of vision who go out to sell two cars to families that have formerly gotten along with one are finding a new market. Editors don't make less or more than they are worth, which means that they aren't, to say, affluent, but even I am going to have a second car—just as soon as I get through paying the instalments on the vacuum cleaner, the iceless refrigerator and the player-piano. Which will be some time, because another salesman has brought my wife to a tardy realization of her extreme need of a Victrola, and that means 12 months more.

HAPPY NEW YEAR. The traffic signal for 1928 shows green and the road is smooth, without a detour. Step on it!

John Cleary Says—

Wait awhile before you go out and buy your new yacht.

During 1926, the industry's biggest year of sales and profits, many an automotive dealer didn't do so well, to put it mildly.

During 1927, which showed a substantial decrease in sales and profits for the industry as a whole, many a dealer showed a substantial increase in sales and profits.

By the same token, a healthy increase in the total business of the industry this year may mean nothing at all in relation to your business.

The complexion of your statement at the end of the year is not determined by the industry. It is determined by you.

If you are a good merchant during 1928 you will have plenty of jack to jingle at the end of the year.

Being a good merchant means more, these days, than handling meritorious merchandise that is well advertised, and maintaining the sales, service, accounting and other facilities requisite for handling the business that comes to you.

It means a force of salesmen who are trained to make calls—and make them. It means going out and getting the order, instead of waiting for the buyer to bring it in. Let me repeat here what I said in these pages this time a year ago—

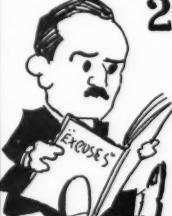
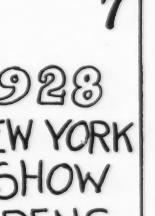
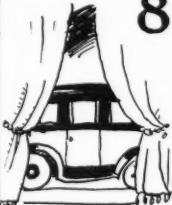
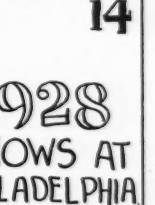
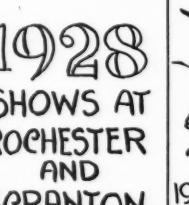
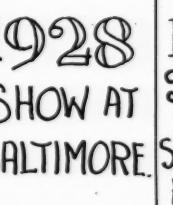
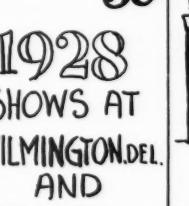
"Whether you sell passenger cars, or trucks, or accessories, or maintenance—or a combination of some or all of these—please bear in mind that you are facing the stiffest competition for the buyer's dollar the world has ever known—

"—a competition that will be participated in by all the other wideawake automotive dealers in your community—

"—and by the salesmen for other products that are fast becoming indispensable to modern life, such as the radio, vacuum cleaners, washing machines, electric refrigerators and other appliances."

So, as I said in the beginning, wait awhile before you go out and buy your new yacht.

The Month of JANUARY in Motor Age

	1		2		3		4		5		6		7
	8		9		10		11		12		13		14
	15		16		17		18		19		20		21
	22		23		24		25		26		27		28
	29		30		31		Jan 1		Jan 10th		Jan 20th		Jan 25th



VOLUME of sales in the automotive industry probably will be 15 to 20 per cent greater in 1928 than it was in 1927. Profits also may be expected to increase materially, but probably not as much in proportion as volume.

The final announcement of the Ford Model A, of course, is the largest single factor in lending strength to predictions of marked advances in automotive volume. When Ford gets into real quantity production, not only will total passenger car output figures be increased materially, but also the business of hundreds of retailers who sell replacement parts and accessories designed to go on the Ford will be give a marked impetus as compared with the last half of 1927. Despite the very great relative increase in original equipment items on the Model A as compared with the Model T, there still are many items which will be added through retail channels.

Aside from Ford's unquestioned effect on the total vehicle production figures of the industry, however, the story of 1928 automotive prospects is far from revolving entirely around Ford. There is good reason to believe that the automotive industry in 1928 will sell as many as 3,900,000 passenger cars and 500,000 motor trucks—and that Ford will not be entirely responsible for the increase by any means. In considering Ford's probable contribution to the 1928 total, moreover, serious account must be taken of the possibility that he will not be able to get into production in the quantities announced as soon as he has hoped.

The total output of passenger car makers exclusive of Ford turned out to be nearly the same in 1927 as in 1926, although some very wide individual variations were recorded.

There will be still further individual variations in the next 12 months, but many of these doubtless will balance one another as they did in 1927. It is quite likely that producers in 1928, exclusive of Ford, will build at least as many as and very probably quite a few more than they did in 1927.

Opinion throughout the industry, both among vehicle manufacturers, parts makers, and dealers leans strongly to the belief that 1928 automotive business will eclipse, not only that of 1927, but that of the record year 1926 when 3,929,542 passenger cars and 535,006 motor trucks were built. There are many facts to justify this opinion, when it is realized that in 1927 passenger car output fell below even the semi-depression year of 1924.

The Automotive

By Norman

*Directing Editor,
Journal*

THREE is good reason to believe that the automotive industry in 1928 will sell as many as 3,900,000 passenger cars and 500,000 motor trucks, and that the increase will be well distributed.

While so important a figure as John J. Raskob has predicted a production of 5,000,000 in 1928 and while his opinion is upheld by a few representative automotive men, it is the more common belief that the 1928 total will not reach such high proportions. Communications and talks with a number of important vehicle company executives, car dealers and car distributors indicate a rather general idea that the 1928 figure will be around 4,500,000 with a few voicing their belief in an even more conservative figure.

It is interesting to note that few automotive executives are bothering much about the fact that a new President will be elected in 1928. The bugaboo about presidential years seems to have been laid away for good, if recent conversations are any guide to basic feeling on this subject. Rarely has the question been raised voluntarily in any talks about the outlook for the next 12 months, while only one or two executives out of many score even mentioned election possibilities in their letters commenting on the future.

Car manufacturers and car dealers this year seem to agree more closely than usual on what the next 12 months are likely to bring forth. The too usual divergence of opinion about how many cars should or will be produced seems to be lacking to a great extent as the industry enters 1928. The estimated total production figures previously quoted have just as much support from retailers and wholesalers as from manufacturing



Outlook for 1928

G. Shidle

*Chilton Class
Publications*

OPINION throughout the industry, both among makers and dealers, leans strongly to the belief that 1928 will eclipse not only that of 1927, but that of the record year 1926.

of 1926 to 276,200 for the first 10 months of 1927. For the same periods, truck exports went up from 61,244 to 102,880 and parts exports shot from \$76,368,993 in 1926 to \$88,583,362. There is every evidence that the continued stabilization of world affairs which is taking place which will result in still further advances in export sales during 1928.

Car prices seem almost certain to remain reasonably stable throughout the 1928 spring selling season. This in itself will be a big factor in keeping the industry on an even keel and in making 1928 a prosperous as well as a productive year. Some are of the opinion that there is a possibility of a slightly downward trend in prices in the lower price classes due to the new values to be found in the Model A Ford at little more than the price of the previous Model T. While definite statements on a matter of this kind are likely to be misleading, it is fair to say that there is no evidence to support the idea that any of the other low-priced makers are going to enter into any definite price competition with Ford.

There has been a strong feeling growing in the industry for some time that price is no longer as powerful a sales weapon as it once was; very strong efforts to focus sales appeal on other factors have been taking effect. Consequently, there is every reason to believe that no serious price readjustments are going to be made in the industry as a whole.

Prices in practically all automotive lines have been down very close to bed-rock for a long time. The industry is far more likely to concentrate on ways and means of eliminating a condition of profitless prosperity than it is to further handicap itself with price declines. While keen competition undoubtedly will tend to urge automotive prices downward, every other factor in the situation, both from the standpoint of the car maker, the parts maker, and the dealer, cries for a maintenance of price levels wherever possible and the establishment or maintenance of reasonable profits.

The necessity for concentration on the development of fair profit margins in every branch of the industry will be emphasized in 1928 more than ever before. With the automotive industry striving with other large industries for a greater share of the consumers' dollar, the imperative need for strength and stability in every link of the automotive chain becomes apparent.

executives. The completeness of the summary from a factory standpoint, moreover, is indicated from the fact that it was developed from analysis of communications from such leading executives as C. W. Nash, A. R. Erskine, E. T. Strong, F. E. Moskovics, H. H. Franklin, A. J. Brosseau, Alvan Macauley, R. E. Gardner and many others.

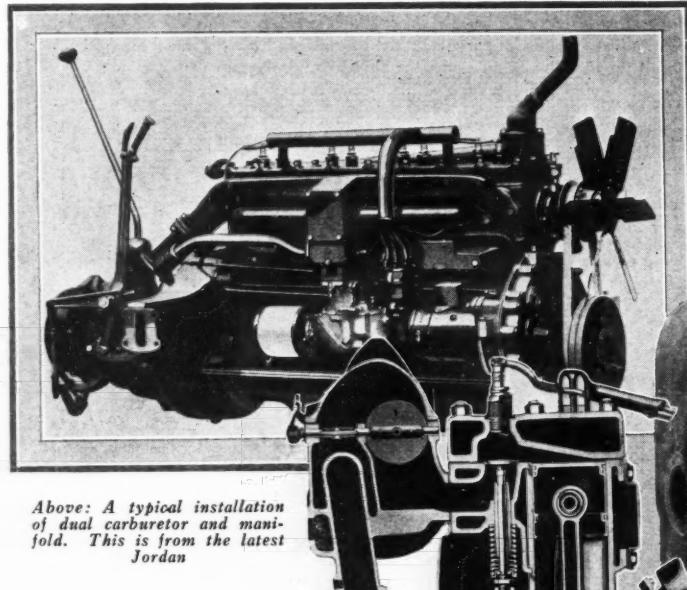
All branches of the industry, in other words, seem united in the idea that 1928 is going to be an excellent year. Nobody is blinking the fact that competition is going to be keen, however, and that the automotive industry is going to have to put on full power to get its fair share of the consumers' dollar. A number of factories are inaugurating new sales organization plans, particularly as related to the set-up of field forces and district control. More intensive coverage and more specific sales promotion help to dealers are being provided for in several instances in connection with used as well as new-car sales.

In so far as factory estimates of total output for 1928 may be higher than those of dealers, the difference is to be accounted for largely by the fact that the former are taking into very definite consideration the export outlook, while the latter, quite naturally, haven't considered that angle of the situation nearly so carefully.

Every automotive line has continued to make progress in the foreign field. Exports of passenger cars from U. S. and Canada increased from 238,376 for 10 months

More Powerful Engines

1928



Above: A typical installation of dual carburetor and manifold. This is from the latest Jordan

Oakland and Hupmobile now mount their ignition units and oil pumps, as shown at right, for better accessibility and protection

Lower right: The Hypoid gear is continued in Marmon and Packard to assist in lowering the bodies

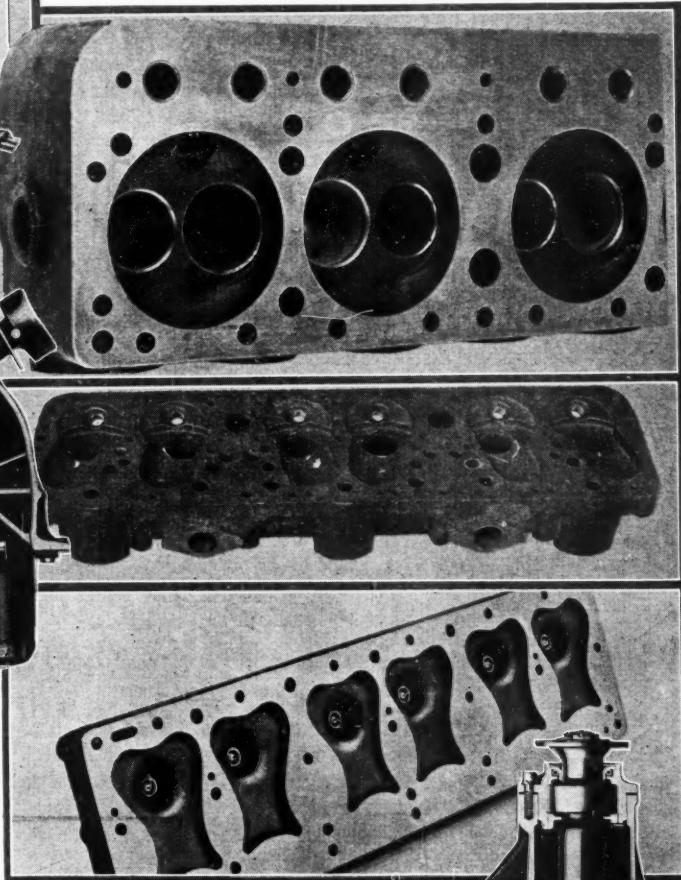
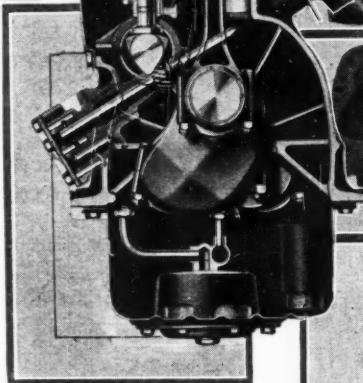
EVEN the most casual observer is sure to notice the improved appearance of the cars for 1928. And the man who has ridden in one of the latest models surely will know that the engineers and designers have been on the job in 1927—for these cars have acceleration and top speed far in excess of earlier models.

True, the past year has brought no radical or startling developments, but many changes have been made in cars to give longer, lower lines, greater speed and acceleration, and improved riding and handling qualities.

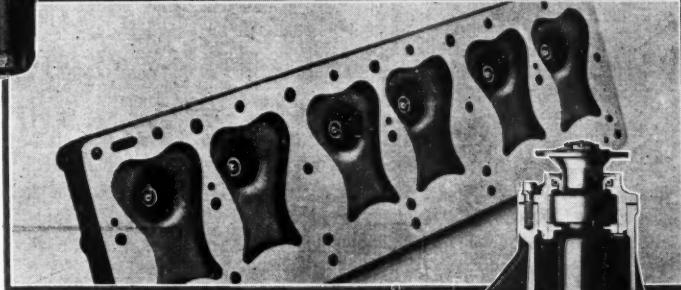
At a glance one sees that the cars look lower. With a few it is the skillful handling of colors and the use of "cheat" lines that have produced road-hugging effects. On the other hand, many models have been actually lowered as much as 2 to 4 in. in overall height. It is interesting to note the universal application of full-crown fenders.

Partly responsible for this reduction in height is the continuing trend toward the use of smaller and smaller wheels. With the rapid development of improved highways throughout the country there is less need of great road clearance and, consequently, designers have taken advantage of this opportunity. In many cases springs have been redesigned or underslung. We also find frames redesigned and making use of a double drop.

In some models the layout of the louvres has an important bearing on the appearance of the car. There is,

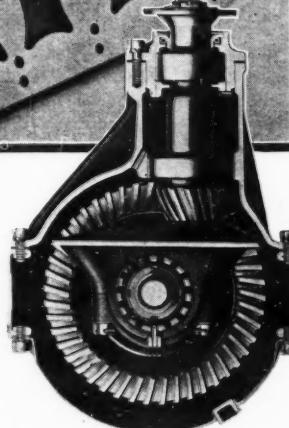


Below—Combustion chamber developments, top to bottom: Buick spherical chamber, Hudson F-head, and new Oakland head



however, no marked trend in any direction on this particular feature as some cars are retaining the conventional vertical louvres, while others are inclining the louvres. Still others are placing the louvres in a horizontal plane in order to gain an effect of greater length of the hood. The Packard models differ from any of these plans in that the sides of the hood are equipped with rectangular-hinged openings.

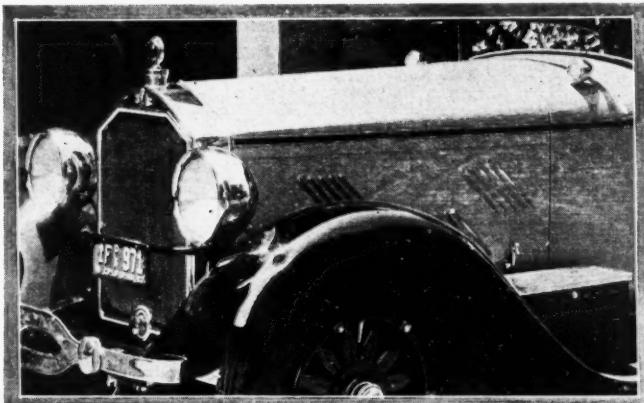
Practically all closed cars have their rear quarters curved more this year than ever before. In addition, the car that does not have window reveals can be classed as the exception, as practically all cars now have their windows outlined in a color that contrasts with that used for the main color of the body. Seizing every opportunity to make the cars not only lower, but also to



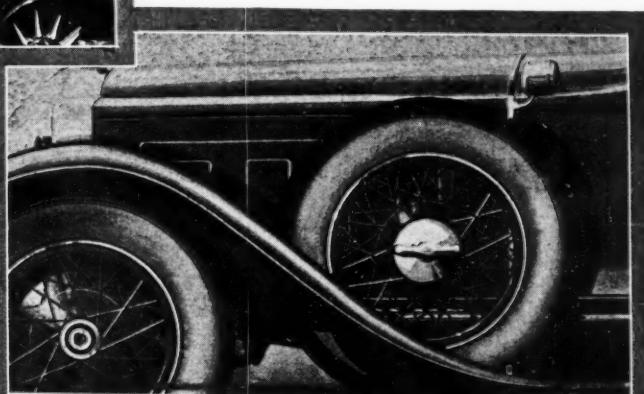
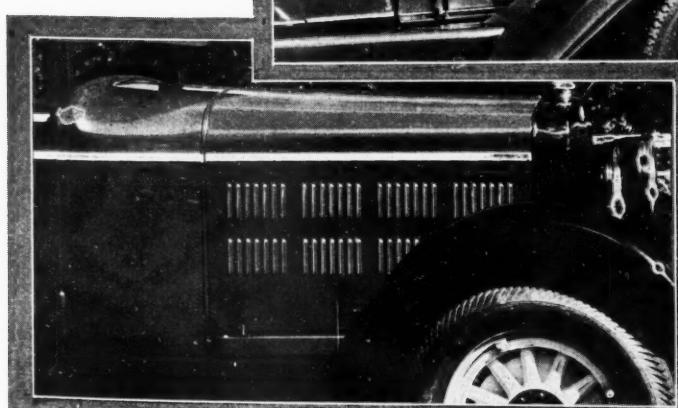
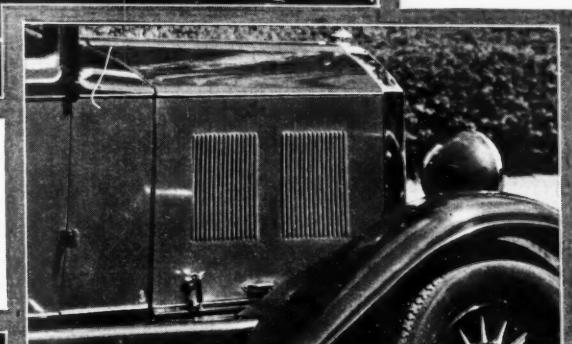
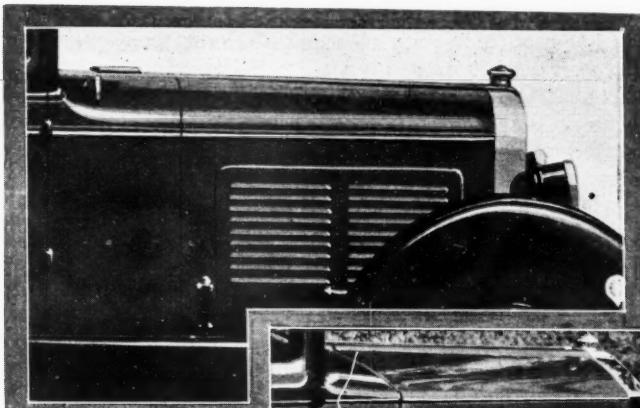
and Lower Bodies Feature Design

Improved Acceleration, Higher Top Speed, Greater Comfort and Easier Handling Vie for Attention With Beauty of Line and Color

By C. Edward Packer



Hood louvres are being varied by body designers. Here we have the inclined louvres of the Stearns-Knight



Louvres as used by Reo on the Wolverine are shown in the upper panel. In the panel immediately below the Reo is the style used by Jordan. Above, at left, is Gardner practice, and at right, Packard

look lower, the use of false bottoms on the radiator is gaining in favor. Also radiators are now narrower and higher in many cases.

Within the cars we find more and more attention being

paid to luxury. Form-fitting seats are seen on a number of models. In general, the interior of most of the cars even in the lower price class presents an attractive and luxurious appearance. Instrument boards, steering wheels, window garnish strips and moldings are decorated to harmonize with the upholstery.

In the effort to meet the buyer's every wish, we find pedals that are adjustable for length, and steering columns that can be raised or lowered in order to fit the car to the driver. Furthermore, many models have front seats which can be shifted forward or backward without great effort, while Buick and Cadillac have gone even farther than that and have made the driver's seat quickly adjustable by means of a small handle that works the moving mechanism.

It seems fair at this time to mention also that most steering gears have been altered so that they now have greater reduction, thus resulting in much easier parking and steering generally.

In the smaller cars everything has

been done to get the maximum leg room. One ingenious way in which this has been accomplished is by using a pressed steel dash shaped to fit around the back of the

(Turn to page 27, please)

The Disorders of a Hand-to-Mouth Diet

By Sherman Swift

ANGELO, the fruit merchant at the corner of Vine and Ivy Streets, turns his invested capital once a day. He is the world's champion hand-to-mouth buyer. But he knows too much about business to carry his small-lot buying to the point where it becomes a fetish. He always has sufficient stock to take care of his trade.

Angelo has been successful because he learned long ago that the most important thing for him to do was to strive for volume sales to satisfied customers. If, by carefully watching his ordering, he can add to the profit from volume sales the additional profits that come with stock turn, well and good, but if it is a question of buying not quite enough or a little too much he chooses the latter course. He is interested in turning his capital as often as possible, but he is far more interested in having his stock complete.

That, in a few words, is the reason why Angelo owns, among other properties, the block in which Tom Johnson has his automotive supply store.

Tom is also a small-lot buyer. A fervent disciple of stock turn once sold him on the idea that the one sure road to profits lay in turning his money as often as he possibly could, regardless of how this was accomplished. Since that time Tom has carried his hand-to-mouth buying to excess, overlooking entirely the all-important fact that stock turn that takes no account of volume is suicide for the automotive retailer.

Tom is inclined to think rather well of himself as a business man, but let us see if his passion for obtaining turnover at the expense of volume sales isn't the main reason why he has done no better than make a bare living ever since he entered the business. First of all, how often has he lost sales because his stocks, pared to the bone, haven't contained the item that the customer wanted? He'll have it tomorrow; the jobber is a good friend of his and he'll send it along by the first delivery. But the customer, unfortunately for Tom, isn't a Mexican. He wants what he wants and he wants it now—not tomorrow. And he won't obligate himself to buy sight unseen. He wants to look at the article before he purchases it.

Tom has fallen down in this manner on nearly every car owner in his neighborhood at one time or another. That is why he has gained the name of being a good dealer to do business with only when one wants an inner tube patched. It's easier and surer to stop off at Bert Jones' on the way down-town if one wants an item of equipment. A little out of the way, perhaps, but Jones always has what is wanted.

That is but one of the many ways in which hand-to-mouth buying carried to excess results in lost profits.

Closely allied to the foregoing and of even greater importance is the fact that hand-to-mouth buying keeps stocks so low that the dealer is prevented from selling the customer more than he planned to purchase. The only way substantial profit can be made from a retail business is by selling customers more than they intended to purchase when they entered the store. That is the prime factor behind the success of any retailer, whether it be the corner candy store or the greatest department store. Certainly the merchant who carries hand-to-mouth buying to excess cannot have the stock that will permit him to put this all-important sales slant into practice.

There is still another way in which small-lot buying, carried to excess with a view to increasing capital turnover, defeats its own ends. That is by the way in which it increases the cost of merchandise. Where a dealer used to purchase in nothing smaller than dozen lots and could perhaps profitably do so today without seriously impairing his turnover, he is now purchasing in quarter and even twelfth of a dozen lots. That means broken packages and greater delivery and selling expense for the jobber. It puts him in the position of a retailer selling to a retailer. The jobber, regardless of his altruistic tendencies, cannot afford to absorb this additional expense and must naturally pass it along to the dealer. Whether or not the dealer in turn can pass it on to the consumer is a question. In some instances it is possible for him to do this, but with the competition that he is up against, he usually finds it incumbent on himself to absorb the extra expense.

Another way in which hand-to-mouth buying may sometimes cause lost profits—and the subject, though only remotely related to this article, certainly deserves mention—is occasioned by the fact that many dealers through confusing stock turnover with long profits, accumulate shelf warmers.

Such a dealer, anxious to make more money and not knowing enough about business to understand why he isn't more successful, decides that the answer is to sell longer profit items. Perhaps he makes this decision himself, but it is probable that he is more often influenced in his judgment by the salesmen of off-brand unadvertised articles, who show him how unwise he is to stick to, let us say, Goode's Radiator Cement, that carries only a small profit margin, when he can stock the Foolit brand and make an extra 10.

The extra 10 per cent is argument enough for the dealer and he stocks the latter brand, perhaps ordering a couple of cases in order to get the extra gross profit.

He reasons that his customers have always bought



Illustration by
Pete Keenan

a good deal of the well-advertised, hence well-known Goode brand, therefore it should be as easy to sell them the Foolit. But the customer won't agree. He is stubborn. He wants Goode's or another equally reliable and well-known brand. After a few half-hearted attempts to break down customer resistance, the dealer goes back to selling Goode's. The brand on which he expected to make the extra profit warms the shelf. Its wrappers become yellowed. Finally the dealer gets tired of seeing the dust-covered pile leaning against the chimney and throws it on to the bargain table. The ash man gets the last few packages. And even he doesn't wax enthusiastic over the gift. He is the recipient of too many such offerings.

In the meantime the dealer has turned his stock of branded, well-known radiator cement three or four times, thus making a far greater net than he could ever have made on the unknown brand, even though it had sold fairly well—which it never does.

It is easy to see how such tactics defeat stock turnover; for every dollar invested in shelf warmers, another dollar must work twice as hard to obtain the requisite proportion of stock turn—and it can't be done.

The term "hand-to-mouth" buying is not a happy one. Too many have taken it literally and the result has been careless under-buying, with all effort concentrated on doing as much business as possible on the jobber's capital and turning the few dollars of actually invested capital as often as possible without giving thought to the increasing of sales volume.

Hand-to-mouth buying is here to stay, but it doesn't

mean under-buying. It means the buying of stocks in amounts that will keep the slow movers pared to the bone, but will at the same time give the dealer bread and butter merchandise in amounts sufficient not only to take care of customers' wants, but to enable him to interest those customers from time to time in items that they had no intention of buying when they entered the store. This means that a generous minimum figure should be set on all stocks, except those for which there is little call.

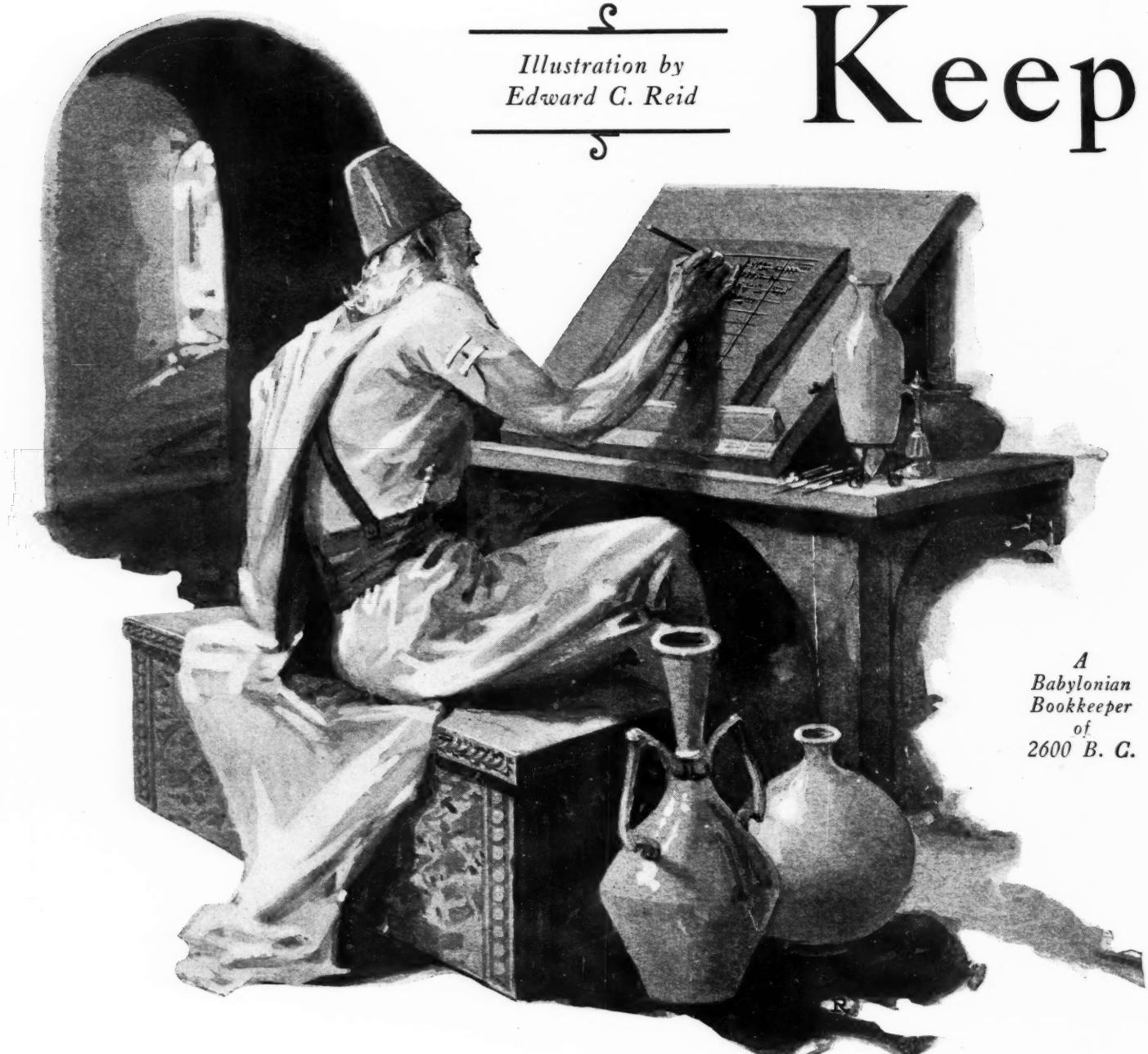
Hand-to-mouth buying that is scientific and thoughtfully undertaken may even favor doing away entirely with slow-movers. Authorities more intimately acquainted with the subject than the writer state that to carry slow-moving merchandise—we are speaking of legitimate goods and not shelf warmers—costs the dealer an average of 10 per cent of the money invested in it. For that reason it may be policy to stock only merchandise that has quick resale possibilities and depend on the jobber to supply the slower moving merchandise as it is wanted.

That, however, is a matter that the individual dealer must decide for himself. The circumstance of location, the class of trade served and the degree of the dealer's purchasing power will all have to be taken into consideration in making this decision.

In any event and regardless of what the dealer's decision may be with regard to the amount of stock that he should carry, it is patent that he cannot prosper if he under-buys; neither can he make that proportion of profit that he must make if he overstocks. The middle course is safe, sane and sensible.

Illustration by
Edward C. Reid

Keep



*A
Babylonian
Bookkeeper
of
2600 B. C.*

BOOKKEEPING, sometimes described as a science and sometimes as an art, partakes of the nature of both. Both science and art have drawn and will continue to draw the verbal bolts of self-righteous antagonists, which leads us to the synthetic conclusion that bookkeeping, in its twin form of art and science combined, attracts twice as many bolts as would be directed at it were it either one and not the other. In the case of bookkeeping as applied to the automotive retail trade, the bolts are those of neglect and indifference.

Bookkeeping isn't an untried factor in the scheme of business; it isn't anything new to be looked upon disdainfully by the conservative business man which is the customary treatment he accords the novel. The art of accountancy is centuries old. Even back in 2600 B.C., archaeologists have found, the Babylonians made use of a crude form of bookkeeping. Their ledgers and journals were slabs of clay and entries were made with a stylus. All in all it was laborious work but, no matter how arduous, the Babylonians perceived the neces-

sity of systematically keeping accounts. Bear that in mind, and then contrast it with a great many automobile dealers who, with modern accounting conveniences immediately at hand, elect to ignore the importance, the howling need for proper bookkeeping.

That neglect and indifference do exist is amply testified in a statement of Alfred P. Sloan, Jr., president of General Motors Corp. Mr. Sloan said, publicly, "Many of our dealers—and the same thing applies to dealers of other organizations—have good accounting systems. Many of them have indifferent ones and I regret to say that too large a percentage of them have practically no accounting systems at all." And Mr. Sloan didn't think that up in the privacy of his office; nor did a little bird warble it to him. His organization caught the cold turkey in the field.

While individual dealers and service station owners may not be convinced that their business requires a proper accounting system to make the most of profit-earning possibilities, the manufacturers—quite fortunately—generally are agreed that it is the business

Books for "Keeps"

*Many Dealers Seem to Keep Them for "Fun," Deriving Only Temporary Benefits, and Others Keep Them Not at All.
The Problem Involved in Extending the Helping Hand*

elixir of the present and the future. It has been said that if business—using the term in its broadest sense—were equipped with proper accounting, a very large percentage of the failures and losses incident to the same could be eliminated. That is a challenge which automotive manufacturers and automotive associations have rightly taken with alacrity. Some associations and some manufacturers have devised accounting systems to serve the purposes of dealers and have placed them in a great many retail establishments. Other dealers have displayed an unwillingness to grasp even this straw.

The fly in this sort of ointment is similar to that encountered by the Automotive Electric Association in its effort to institute well-organized business methods in automotive service station operations. Last year this association organized the Auto-Electric Business Service, Inc., whose job it was to develop a standard bookkeeping system designed especially for automotive service station use; to sell the system to the trade at a nominal cost, and to provide a free correspondence business service to its users.

In commenting upon this program at a recent convention, W. M. Cunningham, resident comptroller of United Motors Service, declared that while the association recognized at the beginning that to sell this bookkeeping system extensively would require the employment of salesmen, the capital available did not permit conducting operations on this basis. It was also felt at that time, he said, that since no other similar system had ever been available to service stations, it should be possible to sell a large number of the systems through a well-planned advertising program.

Accordingly an extensive direct-by-mail and magazine advertising program was launched, but results to date have demonstrated clearly that entirely aside from the failure of the appeal to produce the number of orders expected, the purchase of one of these systems alone will not accomplish the desired results. A system may be purchased and properly maintained by the service station, and still be of little value due to the fact that the owner or proprietor very often is not capable of interpreting or reading his monthly statements. In cases of this kind no steps are taken to improve conditions that probably should be remedied, even though the remedy may be clearly indicated by his bookkeeping records.

By George T. Hook

in this line the principal requirements are personal contact in selling the bookkeeping system, and personal contact with the owners or managers in educating them to read and interpret the facts made available by the system, and showing them how to apply this knowledge to the operation of the business in a sound and efficient manner.

That is a lucid statement of the problem confronting the would-be benefactors. But it is not to be denied that a solution never will be effected if remiss automobile dealers, service station and garage owners fail to comprehend that their cooperation is a prime requisite in this program to benefit them. If they persist in their unwillingness to recognize the bald fact that reliance upon unsystematic methods of business conduct is a millstone that always will keep the head of complete

success under water, then the benefactors can hardly hope to effect the stabilization that is their aim.

Recognition of this important factor of cooperation by all parties concerned in the general scheme was given by the president of General Motors a short time ago when he said:

"We consider our dealers partners in our business. It is true they operate on their own account, but they are, nevertheless, partners in the sense that their prosperity is linked with our prosperity, and all good partners should recognize the necessities of each other and cooperate so that all weaknesses can be eliminated."

To this end General Motors organized a subsidiary whose chief function is to establish proper accounting systems wherever desired by the corporation's dealers.

Out of every 100 men engaging in business in the United States, says Bradstreet, 95 fail to make money, and 60 per cent of the failures can be attributed to carelessness, lack of system and ignorance of the true conditions and progress of the business.

Will you be numbered with the money-making 5 per cent a year from now or five years hence? If you are careless, if your business lacks system, if you are passing up the installation of a bookkeeping system with the excuse that it is unnecessary expense and work, you can just paste a little note in your hat to the effect that you stand a good chance of having taps sounded over your business cadaver in the near future.

The List of Exhibitors at the New York National Automobile Show

Cars

Auburn Automobile Co.
Buick Motor Co.
Cadillac Motor Car Co.
Chandler-Cleveland Motors Corp.
Chevrolet Motor Co.
Chrysler Sales Corp.
James Cunningham Son & Co.
Dodge Brothers, Inc.
DuPont Motors, Inc.
Durant Motors, Inc. (Star)
Elcar Motor Co.
Falcon Motors Corp.
Flint Motor Co.
H. H. Franklin Mfg. Co.
Gardner Motor Co., Inc.
Hudson Motor Car Co.
Hupp Motor Car Corp.
Jordan Motor Car Co., Inc.
Kissel Motor Car Co.
Lincoln Motor Co.
Locomobile Co. of America
McFarlan Motor Corp.
Marmont Motor Car Co.
Moon Motor Car Co.
Nash Motors Co.
Oakland Motor Car Co.
Olds Motor Works
Packard Motor Car Co.
Paige-Detroit Motor Car Co.
Peerless Motor Car Corp.
Pierce-Arrow Motor Car Co.
Reo Motor Car Co.
F. B. Stearns Co.
Studebaker Corp. of America
Stutz Motor Car Co. of America, Inc.
Velle Motors Corp.
Willys-Overland, Inc.

Taxicabs

Yellow Truck & Coach Mfg. Co.

Trucks

American-La France Fire Engine Co., Inc.
Chevrolet Motor Co.
Corbitt Motor Truck Co.
James Cunningham Son & Co.
Dodge Brothers, Inc. (Graham)
Durant Motors, Inc.
Federal Motor Truck Co.
General Motors Truck Co.
Larrabee-Deyo Motor Truck Co.
LeBlond-Schacht Truck Co.
Reo Motor Car Co.
Roamer Motor Car Co.
Sayers & Scovill Co.
Selden Truck Corp.
Stewart Motor Corp.
Studebaker Corp. of America
Stutz Motor Car Co. of America, Inc.

Service

Albertson & Co.
Au-to Compressor Co.
Automotive Maintenance Machinery Co.
Bean Spray Pump Co.
Birmingham Machine Fdry. Co.
Black & Decker Mfg. Co.
Breeze Corp., Inc.
Brunner Mfg. Co.
Carborundum Co.
Champion Pneumatic Mchy. Co.
Crescent Tool Co.
Curtis Pneumatic Mchy. Co.
DeVilbiss Co.
Dunning Compressor Co.
Elite Mfg. Co.
J. H. Faw Co.
Federal Mogul Corp.
Fleming Machine Co.
Forest Electric Co.
General Electric Co.
Goulds Pumps, Inc.
Hall Mfg. Co.
Halstead Specialties Co.
Hardie Mfg. Co.
Hayes Pump & Planter Co.
Hinckley Myers Co.
Ernest Holmes Co.
Geo. L. Hunt Mfg. Co., Inc.
Hutto Engineering Co.
Imperial Brass Mfg. Co.
Irving Cloud Publishing Co.
Kehawke Mfg. Co.
Kellogg Mfg. Co.
Kent-Moore Organization

Larkin Automotive Parts Co.
Lit-War Co.
Manley Mfg. Co.
Marquette Mfg. Co.
Motor Service
National Standard Co.
Pacific Rim Tool Co.
Rogers Products Co., Inc.
Safety Vulcanizer Co.
Scully Steel & Iron Co.
Service Station Equipment Co.
C. A. Shaler Co.
Simplicity Mfg. Co.
Snap-on-Wrench Co.
South Bend Lathe Works
L. S. Starratt Co.
Stevens Walden-Worcester, Inc.
Trindl Corp.
Van Dorn Electrical Tool Co.
Walker Mfg. Co.
Watervliet Tool Co., Inc.
Weaver Mfg. Co.
Joseph Weidenhoff
Yellow Jack-It Mfg. Co.

Accessories

AC Spark Plug Co.
American Bosch Magneto Corp.
American Brake Materials Corp.
American Brass Co.
American Chain Co., Inc.
American Hard Rubber Co.
Anderson Co.
Anderson Mfg. Co.
Arkay Sales Co.
Arrow Head Steel Products Co.
Art Metal Works
Atlantic Yellowstone Pacific Hiway, Inc.
Auto Hat Holder Co., Inc.
Automobile Digest
Automotive Daily News
Automotives, Inc.
B. B. Sales Co.
J. B. Baumann
Bendix Brake Co.
Biflex Products Co.
Bigler Mfg. Co.
Birmingham Machine Fdry. Co.
Bohn Aluminum & Brass Corp.
Edw. G. Budd Mfg. Co.
Budd Wheel Corp.
Bragg-Kleis Rath Corp.
Edw. R. Bule Chemical Corp.
Byrne, Kingston & Co.
C. G. Spring & Bumper Co.
Cactus Mfg. Co.
A. S. Campbell Co.
G. R. Carter Co.
Central Mfg. Co.
Chilton Class Journal Co.
Cler Site Co.
Conn. Automotive Specialties Co.
Continental Motors Corp.
Craveroller Co. of America
Crownier Co.
Dayton Steel Foundry Co.
Duro Co.
Eagle-Ottawa Leather Co.
Eaton Axle & Spring Co.
Eclipse Machine Co.
Erlichman Bros., Inc.
F. F. J. Sales Co.
Fandango Products of N. Y., Inc.
J. H. Faw Co.
Federal Pressed Steel Co.
Fink-Dumont-White, Inc.
Fleet Owner List Co.
Ernest Flentje
Irving Florman Co.
Flower City Specialty Co.
Fry Co., Inc.
G-H Mfg. Co., Inc.
Gabriel Snubber Mfg. Co.
Gat-Gun Lubricating Corp.
Gemmer Mfg. Co.
General Chromium Corp.
General Electric Co.
Gits Bros. Mfg. Co.
Goulds Pumps, Inc.
Graphol Products Co., Inc.
Great Western Mfg. Co.
L. P. Halladay Co.
Halstead Specialties Co.
Hamilton-Wade Co.
Hartford Battery Mfg. Co.
Edward V. Hartford, Inc.
Hartmann Trunk Co.
Harvey Spring & Forging Co.
Hawdos Corp.
Hayes Body Co.
Heintz Mfg. Co.

Heller Bros. Mfg. Co.
Hercules Motors Co.
Homestead Valve Mfg. Co.
Horn Warn Corp.
Houde Engineering Corp.
Houpert Machine Co.
Illinois Iron & Bolt Co.
Imperial Brass Mfg. Co.
Indiana Lamp Co.
Industrial Refining Co.
Irving Cloud Publishing Co.
Irving Engineering Co., Inc.
Jassen Wind Deflector Co., Inc.
K. P. Products Co., Inc.
Kari-Keen Mfg. Co.
Kelsey Hayes Wheel Corp.
Kokomo Electric Co.
Laminated Shim Co., Inc.
Landis Engineering & Mfg. Co.
LeadsAll Mfg. Co., Inc.
Lepel Ignition Corp.
Leich Electric Co.
Lorraine Corp.
Lycoming Mfg. Co.
J. C. McAdams Co.
McQuay-Norris Mfg. Co.
Mall Tool Co.
Robert Marcus Co., Inc.
James Martin
Metal Stamping Co.
Metropolitan Body Co.
Monroe Auto Equipment Mfg. Co.
Moto Meter Co., Inc.
Motor
Motor Appliance Co.
Motor Improvements, Inc.
Motor Service
National Battery Equipment Co.
National Chromium Corp.
National Electric Corp.
Natoli Mfg. Co., Inc.
No-Tarnish Products Corp.
O.K. Vacuum Brush Sales Co.
Okonite Co.
Overhead Door Corp.
Penberthy Injection Co.
Pines Winterfront Co.
Wm. E. Pratt Mfg. Co.
Radiator Specialty Co.
Richards-Wilcox Mfg. Co.
Ross Gear & Tool Co.
Safe-T-Stat Co.
Schack & Co.
A. Schrader's Son, Inc.
Scully & Jesselson
C. A. Shaler Co.
Shore Instrument & Mfg. Co.
Siegr-Warfard Co.
Silver-Brite Battery Mfg. Co.
Simplex Piston Ring Co. of America, Inc.
H. W. Sisson & Co.
Smith & Gregory of N. Y., Inc.
Standard Safety Sales Corp.
S. S. Stafford, Inc.
Stephenson Protectahood Corp.
Sturges Multiple Battery Corp.
Superior Die Casting Co.
Super Smart Studios, Inc.
Seth Thomas Clock Co.
Tickford Body Co.
Tiffany Mfg. Co.
Titeflex Metal Hose Corp.
Tonneau Shield Co.
Trans-Continental Freight Co.
Trico Products Co.
Tripp-Secord Co.
U. S. E. Corp.
United States Air Compressor Co.
U. S. Auto Lamp Mfg. Co.
United States Chain & Forging Co.
Unity Mfg. Co.
Vacuum Oil Co.
Veedor Mfg. Co.
Vichek Tool Co.
Wahl Co.
Warren Tool & Forge Co.
John Warren Watson Co.
Waukesha Motor Co.
Wedler-Shuford Co.
Wellston Mfg. Co.
Westinghouse Air Brake Co.
Westinghouse Electric & Mfg. Co.
Wm. Wharton, Jr., Co.
Wheeler-Schebler Carburetor Co.
Whitney Mfg. Co.
Wire Wheel Corp. of America
Wolverine Bumper & Specialty Co.
Ernest W. Worsdell Co., Inc.
Wyman-Gordon Co.
Carl Zeiss, Inc.
Zenith-Detroit Corp.

FEATURES OF 1928 DESIGN

(Continued from page 21)

engine, thus adding an extra inch or so to the available room in the car.

Contributing to the attractiveness of the exterior, we find increasing use of nickel and chromium plating, and particularly is the use of the latter increasing.

While in the last year a few companies making large cars have introduced models in the smaller car field, the greater number of cars offered is due primarily to a great increase in the number of body styles available. Not only are there more body styles, but a greater array of color combinations is offered at the present time than in any past period. While increasing congestion has made it more difficult to park, car manufacturers have offset this to some extent by reducing the overall length of some of their models and improving the steering qualities. However, it would be exaggeration to say that this reduction in overall length is a positive trend for we find some cars that are larger this year than ever before and even some of the shortest cars have increased their wheelbase slightly.

Possibly this increase in size is one answer to the popular demand for greater comfort. At any event it is conspicuous that the latest models are the most comfortable cars yet produced. There is no doubt that the improvement made in springs in the last year has much to do with this. On the other hand, the increasing use of shock absorbers is a very definite reason for improved riding quality.

There is no doubt that the American public demands speed and acceleration. Surely there is a desire among many for economy, but performance comes first. There is a very definite trend toward the use of larger engines. In addition to this we find that engines this year are being operated at higher compression ratios than ever before. A few companies are offering an optional compression ratio higher than the standard one, for use at high altitudes, or for use on certain models when using non-detonating fuel. One means employed for obtaining the extra-high compression ratio is to equip some special cars with higher pistons, whereas the other method is to use a special cylinder head. We find also some cases of increased maximum engine r.p.m.'s as well as greater power output. In the fastest engines aluminum alloy rods as well as pistons are found.

For 1928 more cars than ever before are being equipped with gasoline, oil and air filters. The use of dual intake manifolds and duplex carburetors has found several converts in the last few months.

There is an increasing use of rubber mounting for engines. It will be appreciated that carrying of the engine on rubber blocks eliminates a firm connection with the frame and consequently a number of cars are making use of additional frame cross-members in or-



Above: Decentralized instruments of the Cadillac. Left: Latest double Packard valve spring. Right: Grouped lubricators on the Buick

der to attain greater rigidity. An interesting development is the fact that in some cases the engine, as it is, is no longer a good ground for electrical connections. This is particularly true with regard to the starting circuit where such heavy current is drawn. The cause of this is the use of rubber blocks in the engine mounting and in the clutch drive parts. This practically insulates the engine from the frame, except for a few control rods, and consequently, some models are found on which the engine is electrically connected to the frame by means of a flexible cable.

The clutches for the most part show practically no change in the last year, the single-plate clutches being popular for all but the larger cars. One outstanding exception is the Model A Ford multiple disk clutch.

With the use of more powerful engines it has been found that the use of lower gear ratios is practical. There is no doubt that the stock car races of the last year had some influence on certain manufacturers to offer lower gear ratios or at least to have them available as optional gearing. Increasing use of cars for covering long distances, made possible partly by the great improvement in highways, has made lower gearing desirable on some models. With increased engine power this gearing gives remarkable road speed, and acceleration is also unusually good.

With the Ford car now using standard gear shifts and the changing over in the past year of two other cars, practically all cars now make use of standard shifts. The exceptions to this are those cars using four-speed transmissions. Paige and Locomobile cars are now offered with four-speed transmissions and the Gardner has a four-speed transmission offered as optional equipment at extra charge.

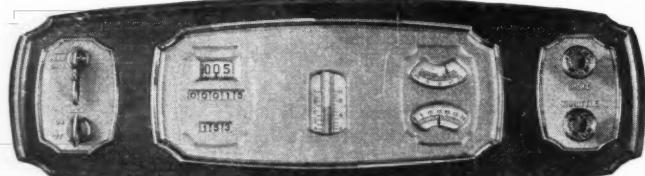
While the conspicuous trend of late has been to group all instruments under a single glass on the instrument board, the Cadillac offers a distinct departure.

Nash, Ford, Dodge Four, Pontiac, Essex and Chevrolet, using four-wheel brakes, their application is practically universal.

General chassis lubrication remains about the same for 1928 as it did in 1927 except that Pierce-Arrow and Auburn have added "one shot" lubrication systems.

While great attention has been given to appearance and riding qualities of the cars, it is conspicuous that the fine points of engineering which make for reliable operation have not been overlooked. After a careful check-up one can only say that there is every reason why the latest cars should prove by far the most satisfactory in comfort, beauty, performance and safety.

Four-Wheel Brakes and Pontiacs



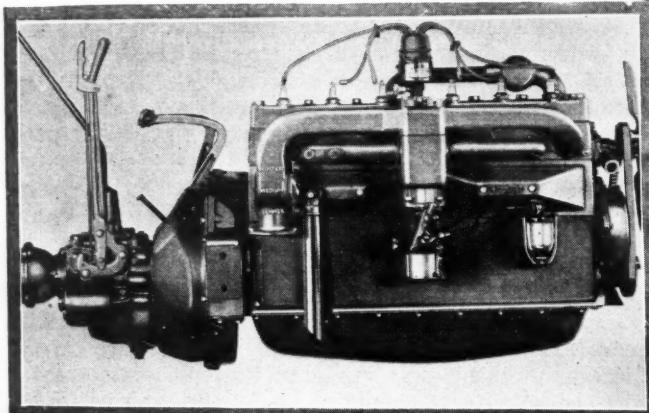
This attractive instrument panel adds to the decorative treatment of the new Pontiacs. A hydrostatic gasoline gage is mounted in the center of the panel

COMPLETELY new, attractive bodies and a score of mechanical innovations and improvements feature the 1928 Pontiac Six line announced by the Oakland Motor Car Co. With prices remaining unchanged, the new cars represent decidedly increased values, with mechanical four-wheel brakes, AC fuel pumps, a new idea in radiator design, higher compression and more efficient cylinder heads, improved manifolding and a new carburetor, cooling thermostat, and a new type steering gear standard.

At first glance the impression is created that the wheelbase has not been increased. While this is not the case, the higher radiator and hood, deeper roof, higher belt lines and better streamlining certainly contribute toward that impression. Little additions, like paneled splash pans and headlamp tie rod brackets, a false bottom on the radiator, concealed screws in the running board, a three-part instrument panel, and radiator fluting carried into hood and cowl, all contribute to the more pleasing appearance, in addition to the fact that every piece of sheet metal in the car has been redesigned.

Leading the mechanical improvements are the power-plant changes, and especially the new radiator. In the design of this core it is evident that the Harrison Radiator Corp. has profited by its studies in steam cooling, and adapted some of its principles to water cooling. Working on the theory that more or less vapor and steam are generated in the average water-cooled system, and that in the normal type of radiator these would naturally pass out through the overflow pipe, a

Side view of the Pontiac engine, showing new manifolding, Carter carburetor and AC fuel pump. Note thermostat on cylinder head and crankcase ventilating system outlet pipe

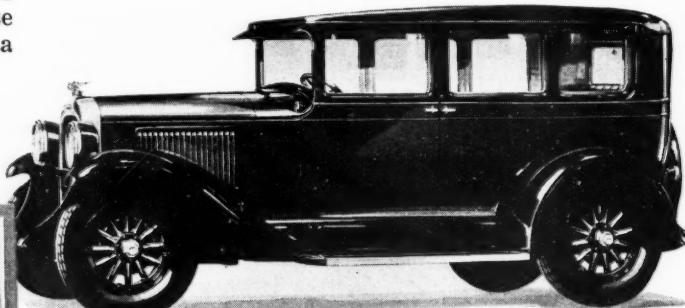


*New Radiator Has Cross-Flow Core,
With the Inlet From the Engine
About Midway Up the Left
Side of the Tank. Prices
Start at \$745*

By A. F. Denham

cross-flow core has been designed, with the inlet from the engine about midway up the left side header tank. From here the water flows horizontally under pump pressure through the core to the right side header tank which is connected at the top to the tank at the top of the radiator. Water is taken from the core at the lower right-hand side. With this design any steam or vapor will most likely be condensed before it gets through the core, and any residue would be cooled rapidly by the cooler strata of water in the tank on top of the radiator. In fact the latter forms practically only a reservoir of water, its contents being almost stagnant, and repeated tests have shown that the water contained in this tank has the lowest temperature in the cooling system.

An additional valuable advantage which this type of radiator should have is that of materially reducing the rate of alcohol evaporation in the winter time. It also presents an opportunity for operating the car with the radiator less than full in the winter time, since the net result would be merely to reduce the cooling area and maintain higher temperatures. Most steam or alcohol



Appearance of greater length is created by the higher hood and radiator and better streamlining. This is the four-door sedan

vapor which might enter the radiator under such conditions would be condensed while passing through the core and up into the header tank from the right.

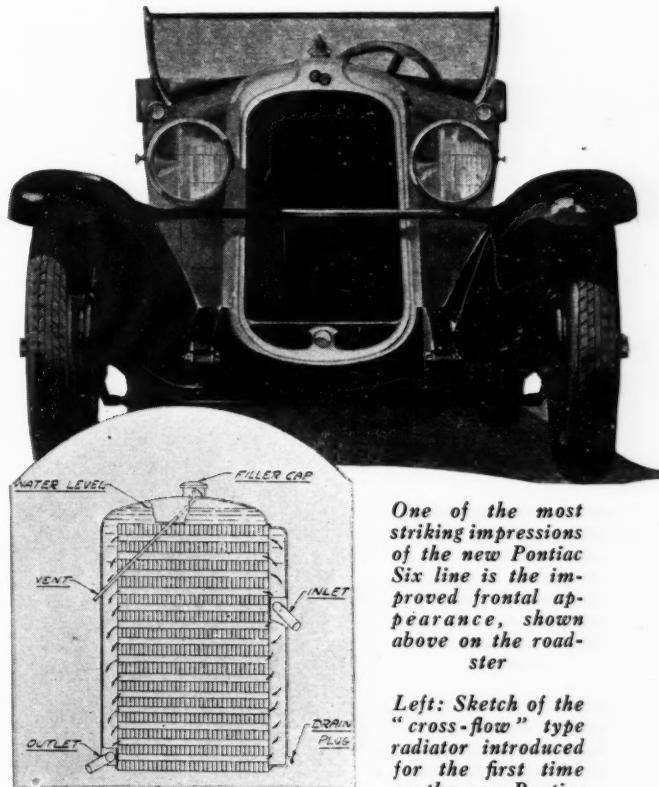
In combination with the new radiator is a new system of water outlet manifolding for the cylinder blocks, consisting of two pipes rising from the front of each of the two cylinder heads, and joining in the middle, at

New Bodies Features of for 1928

which point a circulation-controlling thermostat is located. The water pump has also been redesigned to make the revision of the cooling system complete, and now has the double impeller type of construction, designed to reduce thrust on the pump bushing by balancing the fan thrust.

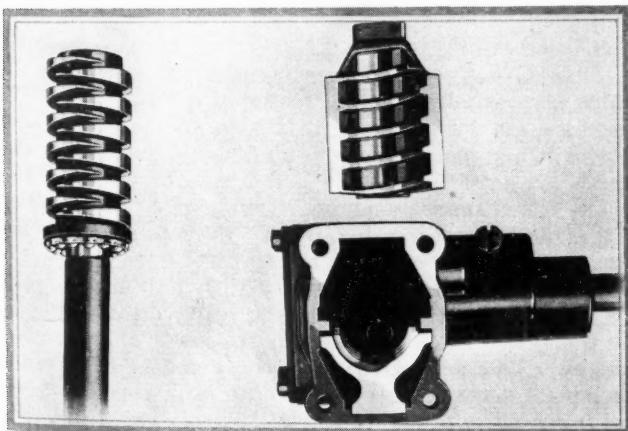
Probably next in importance in the engine improvements is the combination of the G-M-R type of cylinder head with a new system of manifolding and a new carburetor, effective in increasing power by about 12 per cent and eliminating soft spots when accelerating, especially from low speeds. The new head is similar to that adopted recently on the Oakland All-American Six, its chief characteristics being a convex baffle over the piston, designed to reduce detonation and enable the use of higher compression ratios. From this angle the compression ratio of the Pontiac engine has been raised from 4.6 to 4.9 to one.

The new Carter carburetor is equipped with an accelerating well pump, a venturi choke and an internal economizer. A "starting mixture" button on the dash



One of the most striking impressions of the new Pontiac Six line is the improved frontal appearance, shown above on the roadster

Left: Sketch of the "cross-flow" type radiator introduced for the first time on the new Pontiac



Ball thrust bearings and new style of split nut guides characterize the steering gear

is used instead of the usual choke. When pulled out it closes the air passage through the venturi and opens the throttle slightly. By this means flooding of the engine is prevented, the interconnection of throttle and choke being so designed as to provide an idling speed equivalent to a car speed of 15 m.p.h. and the engine can be left to run at this speed until the lubricating oil is warm.

The accelerating pump is not an integral part of the carburetor but is mounted on it. Its operation of course is to inject spurts of gasoline into the air stream whenever the throttle is suddenly opened, for rapid acceleration. The intake manifold passages have been increased $\frac{1}{8}$ in. in diameter.

The exhaust manifold has also been redesigned, and

is similar in design to that used on the Oakland. In this system exhaust gases from all six cylinders are carried around the intake riser jacket for cold weather driving, the exhaust manifold from this point to the heat control valve being of the two-passage construction. The heat control valve itself is of the sleeve type and adjustable for various amounts of inlet heating desired.

A further addition to the fuel system is the adoption of an AC fuel pump in place of the vacuum tank. A crankcase ventilating system similar to that used on the Oakland has also been built into the Pontiac. In this system air is forced by fan pressure through an inertia air cleaner on the oil filler pipe into the crankcase, and is expelled through a pipe at the right side of the engine, leading down to below the engine pan, where suction helps in creating a draft.

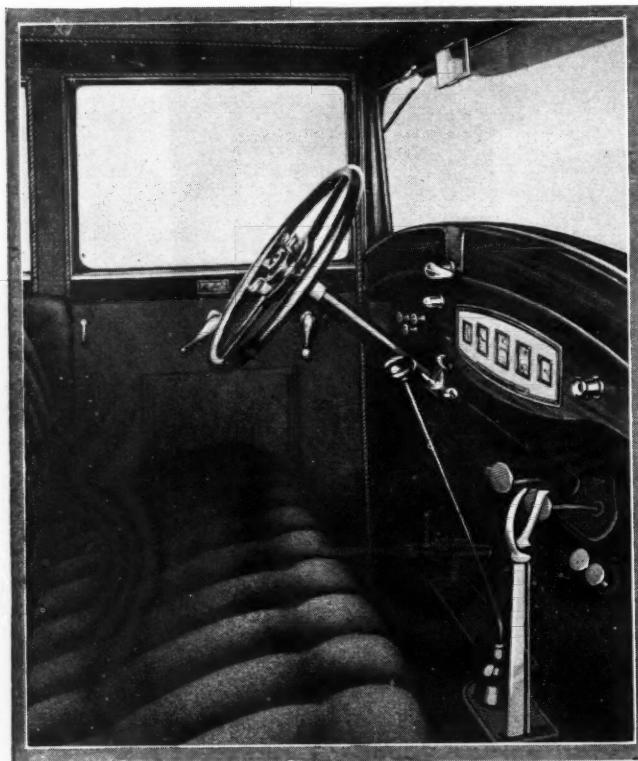
An entirely new clutch is used in the new Pontiac series. It also is similar in design to that used on the Oakland, being of the single-plate push type and having a ball type clutch release bearing. Facings have an outside diameter of $8\frac{1}{8}$ in., an inside diameter of $5\frac{1}{2}$ in., and are $5/32$ in. thick.

The only change incorporated in the transmission is the adoption of a gearshift lock, operated coincidentally with the ignition by a switch on the instrument panel, from which a steel, metal-clad cable runs to the transmission. Rear axles continue unchanged with the exception of slight redesigning of the rear wheel service brakes to adapt them for four-wheel brake linkage.

Front axles, however, are new. Using internally expanding front wheel brakes, they have inclined king pins fitted with ball thrust bearings. An ingenious

(Turn to page 48, please)

Studebaker Adds Series



Interiors of the President eight sedans are attractively finished. The instrument panel is of individual design. Note also the separate light furnished to illuminate the coincidental lock on the steering column, and corded side wall trim

HIgh performance, attractive, comfortable bodies and good riding qualities are the major characteristics of Studebaker's new straight-eight, the President. There is nothing freakish or unusual in the new eight, all units being more or less conventional in design but so proportioned as to produce a car which evidently has been designed with long life as a major item.

There are four body models in the new line. The standard five and seven-passenger sedans list at \$1,985, while the other models, which are de luxe editions of the standard sedans, being equipped with such items as six wood wheels and tires, fender wells, etc., list at \$2,250.

Bodies are impressive, suggesting power, but are gracefully streamlined, with curved rear quarters, double belt moldings enclosing a contrasting color panel, full-crowned fenders, beaded along the edge, a high radiator, and cheat line treatment both at the bottom of body sides and in the roof construction. Interiors are in keeping, with deep upholstery, an attractive instrument panel layout, instruments being under graduated size rectangular frames, arm rests, assist cords and draw shades in rear quarters, and side wall lining cord-trimmed.

Mechanically, the engine is of the medium-speed, short-stroke type, of high horsepower; transmissions

*Powerplant Has Bore and Stroke of
3-3/8 x 4-3/8 and Develops 100 hp.
at 3000 r.p.m. Horsepower
Rating is 36.45. Four Body
Models Range in Price
from \$1,985 to \$2,250*

By A. F. Denham

are conventional and in unit with the engine; the clutch incorporates the Long Mfg. Co. vibration damping plate; rear axles are semi-floating with relatively low gear ratios, and brakes are of the three-shoe Bendix four-wheel type.

If there is any feature which might be characterized as unusual in the chassis construction it is the frame, which is unusually rigid. Pressed of 5/32-in. steel, side members are 8 in. deep, with 2½-in. flanges. There is a total of six cross members, all channel cross members which are over 5 in. wide being reinforced by plates under the channel opening, giving the members a flanged box shape section. Four-point engine suspension also contributes to frame rigidity. On the center cross member the reinforcing plates turn into curved channel members at the ends, forming an attachment for the frame cross members to the lower side member flanges. The rear cross member consists of a wide steel plate serving also as gasoline tank cover. Front and rear spring eye brackets have integral bumper mounting grooves.

With its bore and stroke of 3 3/8 by 4 3/8 in., the engine develops 100 hp. at 3000 r.p.m. maximum. Piston displacement figures out at 313 cu. in., horsepower rating is 36.45, and engine speed at 60 m.p.h. is 2800 r.p.m. Through the use of large and bore short stroke ratio in this engine, an extremely rigid crankshaft results, and main bearing loads are reduced due to the longer bearings possible with this type of construction. Since the crankshaft is 2 5/8 in. in diameter, there is very little chance of whipping, especially with the relatively low engine speed. Only five main bearings are used. These bearings are, however, quite ample in size, additional length being obtained by offsetting connecting rods at either side of main bearing, giving total lengths for the front of 1 3/4 in., 1 9/16 in. for the second and fourth, and 1 15/16 in. for the third and rear.

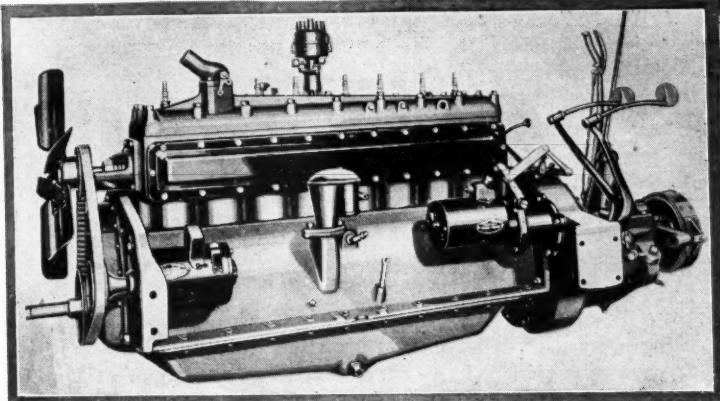
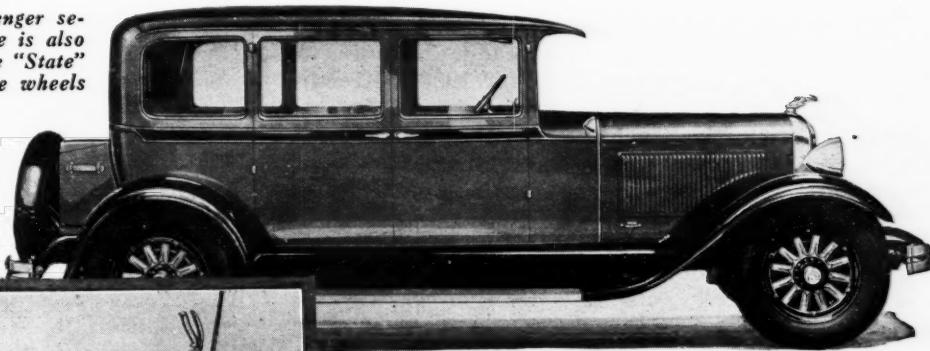
Angularity of the connecting rods is low, these hav-

a Straight-Eight to 1928 Line

Right: Listing at \$1,985, this five-passenger sedan of the Studebaker straight-eight line is also available in a de luxe edition called the "State" sedan at \$2,250, equipped with six wire wheels and tires, etc.

Below: Generator side view of the Studebaker eight-cylinder powerplant, showing wiring conduits, thermostat, and propeller shaft emergency brake.

Clean design features the engine



ing a center to center length of 9 7/32 in., more than twice the stroke. Crankpin bearings, babbitted in the steel rod, are 2 1/4 in. in diameter and 1 3/8 in. long. Piston pins float in a bronze bushing in the rod and are 15/16 in. in diameter. They are located by lock rings butting the pins in the piston. Invar-strut type aluminum pistons are used in the eight. These have four rings, the lower 5/32 in. ring being of the oil control type. Others are 1/8 in. wide.

Front end drive is by means of gears, the camshaft gear being of Textolite fabric, for quietness, and threaded on the camshaft. Camshafts are supported on six bearings of the babbitt-lined, bronze-backed type, pressed into the case and doweled. These bearings decrease in diameter by 1/32 in. steps from front to rear, with lengths from front to rear of 1 17/32, 15/16, 13/16, 13/16, 15/16 and 1 1/2 in. Combustion chambers are of the domed type, which, combined with the L-head valves at a slight angle, provide good turbulence. Com-

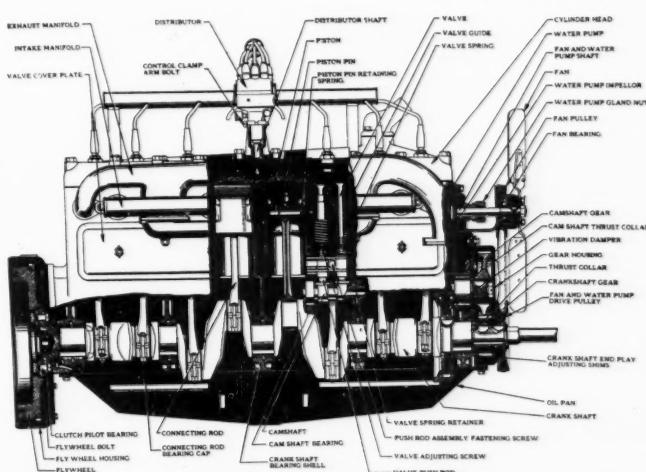
pression ratio is 4.9 to 1. Combustion chambers, which are fully machined, extend about half-way over the piston. Inlet valves have head diameters of 1 5/8 in. and are of nickel-alloy steel, while silchrome exhaust valves have head diameters of 1 9/16 in.

Engine lubrication is by force feed to main connecting rod and camshaft bearings, with spray lubrication to piston pins and cylinder walls. A feature of the oiling system is in the elimination of all but one large oil pipe, these having been replaced by drilled holes in the crankcase. An oil filter is standard on the engine, cleaning the oil on its way from pump to main bearings, being provided with a spring loaded by-pass in case of clogging of the filter. According to the factory, it is necessary to change oil only every 2500 miles after the first 1000.

A 1 1/2 in. Wheeler Schebler single carburetor of the auxiliary air valve type is used, combined with an AC fuel pump driven from an eccentric on the camshaft. Inlet manifold is of the Swan type, with manual heat control provided.

Semi-automatic advance is used in the Delco-Remy distributor, there being 25 deg. of manual and 24 deg. of automatic advance. The distributor itself is mounted above the center of the cylinder head on an extension bracket, enclosing the upper end of the accessories driveshaft, which drives the oil pump (enclosed in the crankcase) at its lower end. A spark plug wire conduit is furnished supported by pressed steel

(Turn to page 48, please)



Cutaway view of the new Studebaker straight-eight engine

Hudson, Essex Enter 1928 With Body Changes

BODY style changes are the leading features of the Hudson and Essex lines for 1928. Mechanically the cars remain practically unchanged. From this angle the most important development is the adoption of Bendix three shoe internal four-wheel brakes on the Essex models. With the adoption of these brakes, the same type of steering gear as is used on the Hudson has been adopted for the Essex, this gear being of the worm and tooth type. In addition an Electrolock anti-theft ignition switch has been adopted on the Essex. Changes, mechanically, on the Hudson are confined to the addition of two more tubular cross-members in the frame, one between the front spring horns and one below the radiator. Prices have not been announced as yet, but it is not expected that they will be changed materially.

Five models are included in the Essex line: a coupe, two-door coach, four-door sedan, rumble seat roadster and sport touring. Regarding the cars from the front a more pleasing appearance is obtained by the use of a higher radiator and vertical instead of horizontal radiator shutters. Full crown fenders beaded along the edge also add to the appearance. These fenders sweep back to a lower running board, the splash pan having been deepened. The running boards are also somewhat wider than formerly.

Chief of the body characteristics of the new Essex line is an unusually high belt line, which with the lower running boards give the car a distinctive appearance. With the higher belt line, windows have been made shallower, giving the appearance of greater length, roof lines being flatter to further emphasize the effect. Belt line moldings sweep down at the front of the body and continue forward on the hood.

Seats are of the form-fitting type. On the sedan, three-inch wider doors are now adopted. Door keys also operate the Electrolock on the instrument panel.



Vertical radiator shutters give a higher frontal appearance to the new Hudsons. The same effect is evident in the Essex models

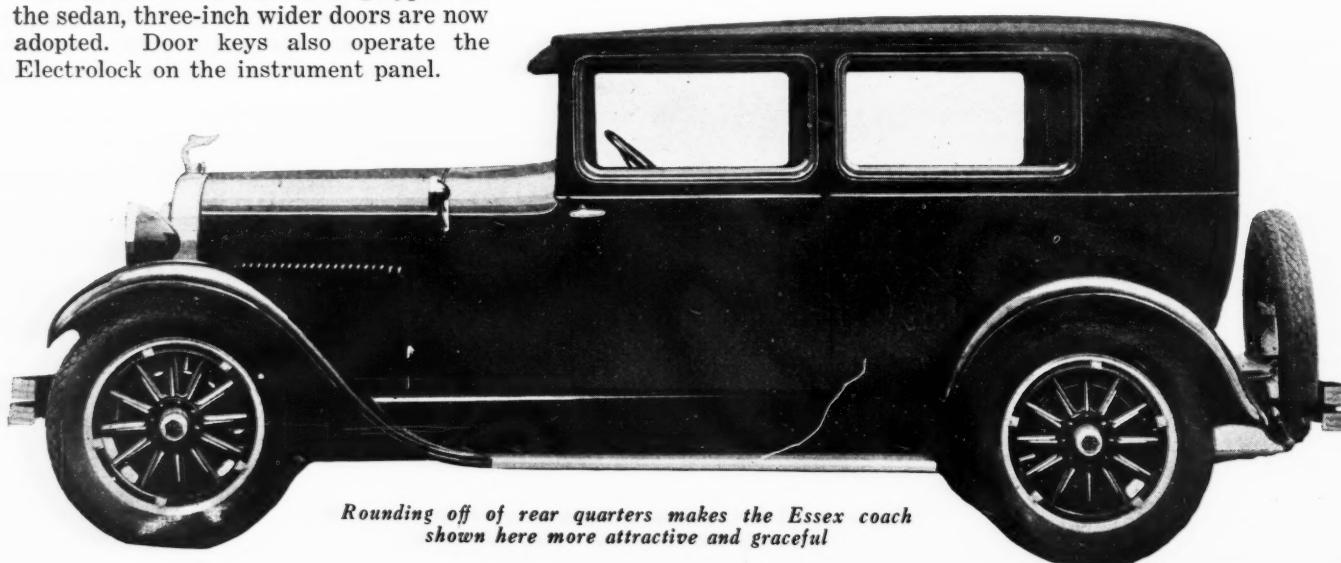
A new type of steering wheel has also been adopted. It is of the steel spider hard rubber covered type.

In addition to the equipment already mentioned, there are cowl lights, radiator ornament, adjustable front seats, automatic windshield wiper and rear vision mirror. On the coupe the rear window can be lowered, while the gas tank filler has been moved to the side to permit mounting of standard trucks and racks.

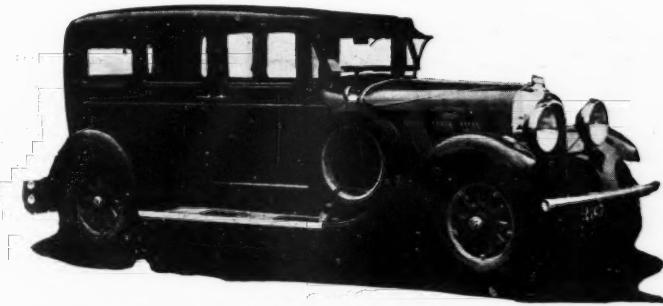
New contours, best shown by the accompanying photographs are also the order of the day in the Hudson models.

As on the Essex, radiators are higher, and carry an ornamental filler cap. Shutters on the Hudson also are now vertical to increase the appearance of radiator height. One of the characteristics of the new cars is the low-hung running board and deeper splash shields. Rear quarters are pleasingly curved.

Inside the cars are found the new type steering wheel similar to that on the Essex, decorative lower windshield panel, with grouped instrument panel of attractive design, including engine thermometer, and gasoline gage in addition to the usual instruments. An Electrolock is standard on the Hudson also. Light control for the double filament bulb headlamps, and throttle and spark controls are mounted above the wheel.



Rounding off of rear quarters makes the Essex coach shown here more attractive and graceful



The above Model 115 sedan illustrates the improved appearance of 1928 Auburns

THE offering of the Auburn Automobile Company for 1928 will consist of three chassis models, two eights and a light six. All three models however have been redesigned to some extent and many interesting little features are found. Chassis models for 1928 are designated according to horsepower. The big eight is called the 115; the smaller eight is called the 88, while the six is called the 76.

Aside from the novel features introduced, the item of greatest interest probably is the unusually stiff frame which has been adopted for all models. There are several changes which are responsible for the greatly increased power of the eight cylinder engine used in the model 115. Major engine dimensions continue unchanged however from those of the 8-88 engine. Probably chiefly responsible for the greater power is the system of dual manifolding and carburetion adopted.

A slight increase in compression ratio is also responsible for part of the power increase. High compression heads with a ratio of 6.25 to one are also offered as optional equipment on the 115, providing even higher power, available through their use in conjunction with anti-knock fuels.

Internal Lockheed hydraulic brakes have been adopted on the 115 as well as on the other chassis models.

There is also a change from the variable ratio cam and lever steering gear to the straight ratio, 16 to 1, Ross cam and lever on the 115.

A further change in the steering gear has been the placing of a cylindrical washer around the steering column in the column support bracket, with a view toward eliminating transmission of road shocks to the steering wheel. A heavier front axle has also been adopted on the 115, carrying out the idea of

Auburn

Features New

Frame

strengthening the front end of the car in conformity with the stiffer frame and more efficient brakes.

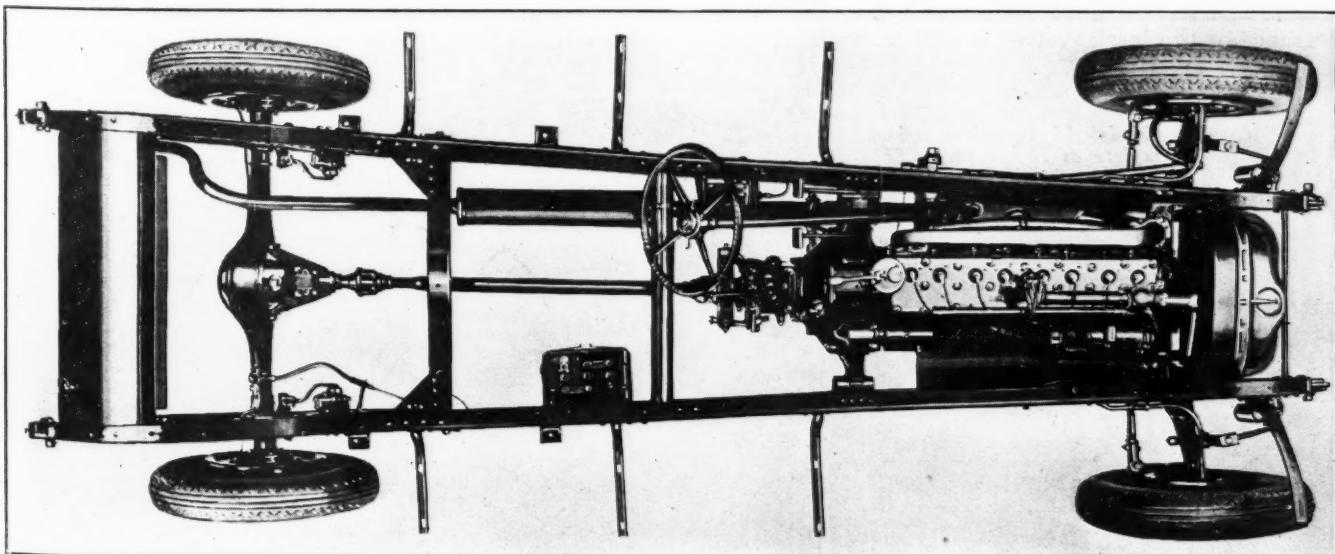
Smaller, 18 in., wheels have been adopted on all models, mounting 30 by 6.20 tires on the 115. These wheels are of a new 10 spoke wood type built by Motor Wheel, and are more massive in appearance.

Instruments include engine thermometer and hydrostatic gasoline gage, while standard equipment on the 115 also includes ribbed nickel tubular bumpers and bumperettes, thermostat in cylinder head, purolator, treadle type accelerator pedal, removable triangular hassocks instead of foot rests, Delco-Remy-Lovejoy shock absorbers front and rear, Electrolock, Trico automatic windshield wiper, trunk racks on the sedans, with a trunk on the sport sedan, cowl ventilator, cigar lighter, combination stop and tail light, and smoking sets on sedans. A highly important addition also is the adoption of Bijur chassis lubrication system.

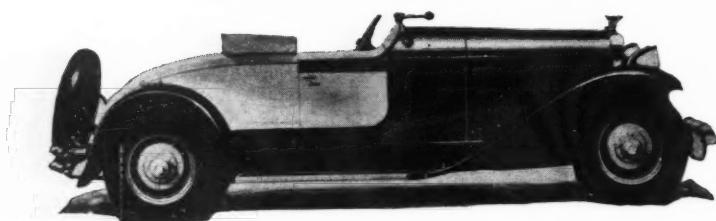
Most of the improvements which have been made on the 130 in. wheelbase model 115 have also been carried out on the model 88, which supersedes the former model 8-77, on a 125 in. wheelbase.

An important change in the engine, resulting in better acceleration, has been made in this eight however. As in the model 115 it is now equipped with aluminum alloy connecting rods and pistons with four $\frac{1}{8}$ in. rings, two of which are of the oil-control type. As in the 115, Bijur chassis lubrication of the one shot type is now used.

Of major importance on the six cylinder Auburn, now called the model 76, is the adoption of a Lycoming engine. This engine has the same bore and stroke as that used in the former model, these being $2\frac{7}{8}$ by $4\frac{3}{4}$ in.



Exceptionally sturdy frames characterize the 1928 Auburns. Brakes are now Lockheed hydraulics



The Gardner Series 95 roadster

HIgher speed, a larger engine in two models, an entire new line of distinctive bodies and lower price are the outstanding features of the 1928 program of the Gardner Motor Co., Inc.

The Model 95, which replaces the Model 90, and the 85, replacing the Model 80, will have larger engines, the distinctive features of which on the 95 is the duplex carburetion and manifolding system which should increase the speed of these cars by approximately 10 m.p.h. Maximum speed of the Model 90 should be from 80 to 95 m.p.h., depending upon the body styles.

Three inches have been added to the wheelbase length of the Model 85, which replaces the Model 80. The new wheelbase is 125 in. Internal hydraulic four-wheel brakes are standard on both the new 85 and 95 and a novel method of mounting the clutch and brake pedal assembly to produce greater power with less pedal pressure is one of the outstanding refinements in both these lines.

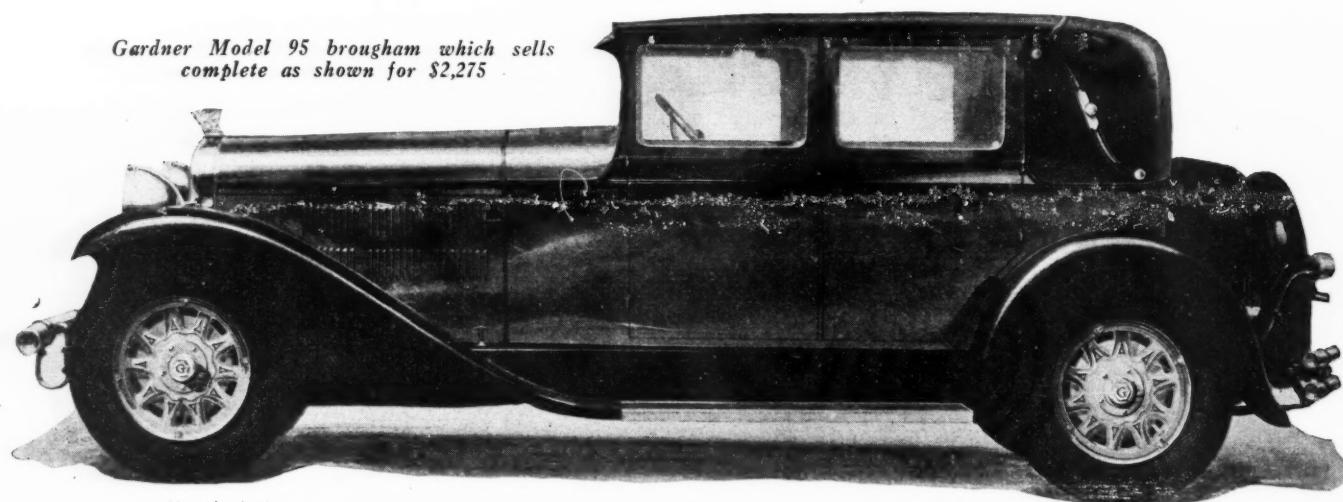
Few changes have been made in the Model 75, but a new low price of \$1,195 on the roadster model places this line before the public at a figure which the Gardner Motor Co. believes is the lowest ever set for a straight-eight automobile. Body and chassis specifications are materially the same, the only changes being in equipment.

Through the use of a double manifold, and a high-compression cylinder head, brake horsepower of the new Model 95 engine has been increased from 84 to 115, the power being developed at a speed of 3200 r.p.m., instead of at 2900 as in the old Model 90. The compression ratio is now 5.35 to 1, as compared to the old ratio of 5 to 1.

Camshaft bearings graduate from 2.037 in. for the front to 1.943 in. in diameter for the sixth bearing.

Intake valves in the new engine are of chrome-nickel steel instead of silicon-chrome steel, and have a diameter of 1 1/8 in. The exhaust valves, however, are of silicon-chrome and have a head diameter of 1 5/16. Tappet clearance of the intake valves is .006 in. hot and of the

Gardner Model 95 brougham which sells complete as shown for \$2,275



Gardner

Gardner Prices

PRICES of the Series 95 are: four-door sedan, \$2,295; four-door brougham, \$2,275; roadster, \$2,085; and custom collapsible coupe, \$2,495. Prices of the Series 85 are: four-door sedan, \$1,895; four-door brougham, \$1,875; roadster, \$1,695; and coupe, \$2,085. Series 75 prices are: de luxe sedan, \$1,595; club sedan de luxe, \$1,495; standard sedan, \$1,495; standard club sedan, \$1,395; standard sport coupe, \$1,295; standard victoria coupe, \$1,295; and roadster, \$1,195.

exhaust valves .008 in. hot.

There are five crankshaft main bearings in the new engine as in the old, thrust being taken on No. 2. Diameters all are 2 3/8 in. Main bearing lengths, front to rear, are 2 5/8 in., 1 3/4 in., 1 1/8 in., 1 5/8 in. and 2 5/8 in. A damper neutralizes torsional vibration. No changes are made in the connecting rod assembly with the exception that the lower end bearing is now poured under centrifugal action.

Pistons in the new 90 engine are the Bohn-type aluminum alloy instead of cast iron as formerly used. Piston pins are semi-floating, riding in a bronze bushing in the rod. They have a diameter of .875 in. and a length of 2 7/8 in.

Main bearings and connecting rods are oiled under pressure by a gear pump, the oil being cleaned through a Purolator. Wrist pins and camshaft bearings are lubricated by means of splash and collecting pockets. The crankcase oil capacity is 8 qt. and the normal gage pressure is 30 lb.

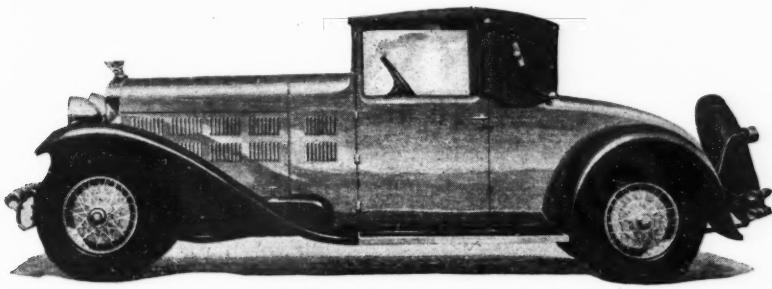
The engine in the Model 85 likewise has been increased somewhat in size, the new bore being 2 7/8 in. instead of 2 3/4. The compression ratio remains the same, 5 to 1. Camshaft bearings are graduated in diameter as in the 95. Intake valves are now chrome-nickel

Betters Performance

By M. Warren Baker



This Series 95 Gardner sedan has an engine that develops 115 hp. at 3200 r.p.m.



Left: Series 85 Gardner custom coupe which replaces the former Model 80

steel instead of silicon chromium steel, but exhaust valves remain silchrome.

No. 3 bearing takes the crankshaft thrust in the 85 and Cadman acorn metal is used for the bearing material. Main bearing diameters are the same as in the 95.

As in the 95, Gardner is changing from cast-iron pistons to Bohn aluminum alloy in the 1928 Series 85. A Schebler SX-222, 1 1/4 in. carburetor is used. Tire sizes are 31 x 6.00 instead of 30 x 6.00 as in the Model 80.

T. J. Corcoran "Glo-Lite" headlamps are used on both the new 95 and the new 85. These make use of a double-filament bifocal bulb of 21 c.p. combined with a two-beam prismatic lens, dimmed by an auxiliary bulb.

All four wheels on both the Model 95 and 85 are equipped with Lockheed internal hydraulic brakes with 50-50 division of braking power. On the Model 95 the drum diameter is 14 in. and width is 2 in. for the service brakes. The emergency brake is external contracting on the transmission and has a diameter of 8 in. and a width of 2 in. On the Model 85 drum diameter has been decreased to 12 in. as compared with the Model 95, but with the same width.

Tire sizes have been changed to 30 x 6.20 instead of the 32 x 6.00 formerly standard.

On both the Model 95 and 85 an externally compounded clutch and brake pedal mounting has been developed. Both pedals are now mounted on a separate shaft several inches to the rear of the clutch throwout

shaft, thus bringing the pedal fulcrum farther back, making possible a longer throw and softer pressure. The clutch pedal is linked to the clutch throwout shaft by a separate rod and lever arrangement, thus in reality providing a double lever for clutch operation. The auxiliary pedal shaft is mounted on pressed steel brackets on the side rail.

A nickel-plated surcingle, on which are mounted the cowl lamps, extends across the cowl from side to side. Where wire or disk wheels are specified, a bracket is provided for mounting of the spare on the surcingle at the side of the body.

All bodies in the Series 95 are constructed of ash and maple, covered by 20-gage body panel steel. Body panels and rear and quarter sections are covered with the same material. Upholstery is in various colors of Chase mohair, broadcloth and leather. Optional shades of lacquer finishes are available. Form-fitting cushions are used.

The interiors of all Models 85 and 95 bodies will be equipped with Dura hardware, bronze-finished. The instrument panel is of spear point design, the Gardner coat of arms furnishing the motif. An inlay molding of the same metal and design is placed in the top of the cowl below the windshield. A new method of inlay mounting is used so that no screws are visible. All instrument dials are grouped in the panel, which is of engine-turned bronze and indirectly lighted.

The new Gardners are equipped with a swinging ventilator rainshield and the front of the top is cut off at a French curve, which combined with a cadet-type windshield visor presents a highly attractive appearance. The roadster models are equipped with one-piece folding windshield and tan Wexford motor cloth tops.



This new Oldsmobile nameplate supersedes that used since bicycle days

NEW in every respect, Oldsmobile's new six-cylinder car bears not even a family resemblance to the former line. It is longer and lower; it has a medium-speed engine of entirely new design, a new and stronger frame, and bodies which give an impression of belonging to a car in a much higher price class than that of the Oldsmobile. While actual prices have not been announced as yet, it can be assumed with safety that prices will not differ materially from those of the 1927 line.

As during the last year seven body models will be offered, including a sport roadster, a sport touring, two-passenger coupe, two-door sedan, four-door sedan, landau sedan and a rumble seat sport coupe.

New from the Oldsmobile nameplate on the radiator to the combination tail and stop light and license carrier, the new bodies have individual appearance. Cowls are exceptionally high and long. Bodies in contrast are low-hung, with low, long windows and attractive molding treatment excellently illustrated by the accompanying photographs. On the hood a raised panel in contrasting color sweeps back, widening out over the cowl and ending up in a bead curved forward over the sides of the hood. Radiator appearance is enhanced by the provision of vertical-type, manually-operated shutters, and a false bottom giving the unit the appearance of even greater height.

Body interiors are attractively finished, with special provisions in the construction against drafts and body squeaks. Standard equipment includes such items as front bumpers, rear bumperettes, Lovejoy shock absorbers, hydrostatic dash gasoline gage, dash engine thermometer and automatic windshield wiper.

Medium-speed in design, and in this respect quite a radical departure for the Olds Motor

Brings Out

By A. F. Denham

Works, the engine develops a maximum of 55 hp. at 2700 r.p.m. That this power is ample for the needs of this car is shown by the fact that fifth wheel speedometer tests of cars at the General Motors Proving Grounds have indicated speeds well in excess of 70 m.p.h., which is given as the top speed of the car.

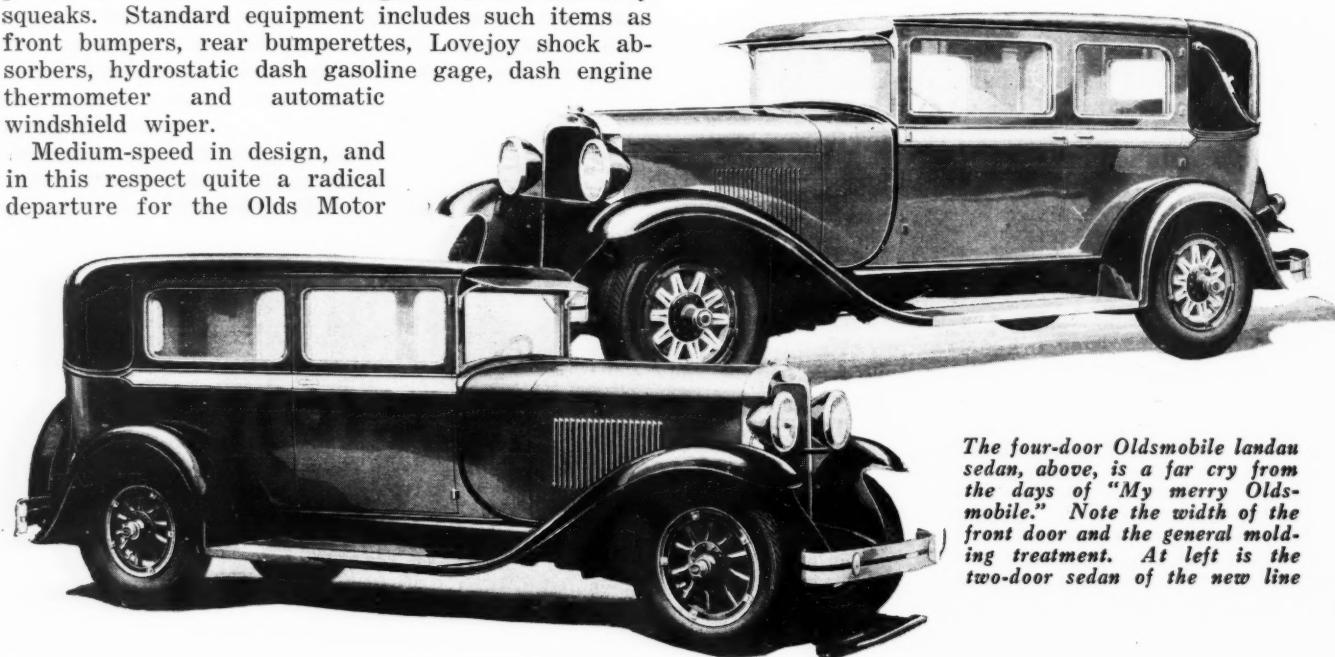
With a compression ratio of 5.0 to 1, the engine develops the high compression pressure of from 96 to 100 lb. per sq. in. Bore and stroke are 3 3/16 by 4 1/8, corresponding to a piston displacement of 197.5 cu. in. and a taxable rating of 24.4 hp. In general design the engine consists of integrally-cast cylinder block and crankcase upper half, pressed steel pan and detachable L-head cylinder head.

Four main bearings are used on the crankshaft, but these are very large.

Combustion chambers are flat at the top and extend just past the center of the piston. No. 1 silchrome steel is used for the exhaust valve to insure the engine's adaptability to doped fuels, while the intake valve is of special alloy steel. The former has a head diameter of 1 11/32 in., with 1 15/32 for the latter.

Valve stems are unusually heavy for this size of engine, being 11/32 in. in diameter, for larger bearing areas in valve guides. They are also fitted with conical valve springs instead of the usual cylindrical type, the new form, it is said, being very effective in eliminating valve spring surge, a frequent cause of valve spring breakage.

Camshaft drive is by a Morse chain. The chain also drives the generator. An integrally-machined gear on the camshaft drives the two-piece, vertical accessories shaft, at the lower end of which the oil pump is located,



The four-door Oldsmobile landau sedan, above, is a far cry from the days of "My merry Oldsmobile." Note the width of the front door and the general molding treatment. At left is the two-door sedan of the new line

Entirely New Car

1928 Offering Has Medium-Speed Engine, Stronger Frame and Lower and Longer Bodies

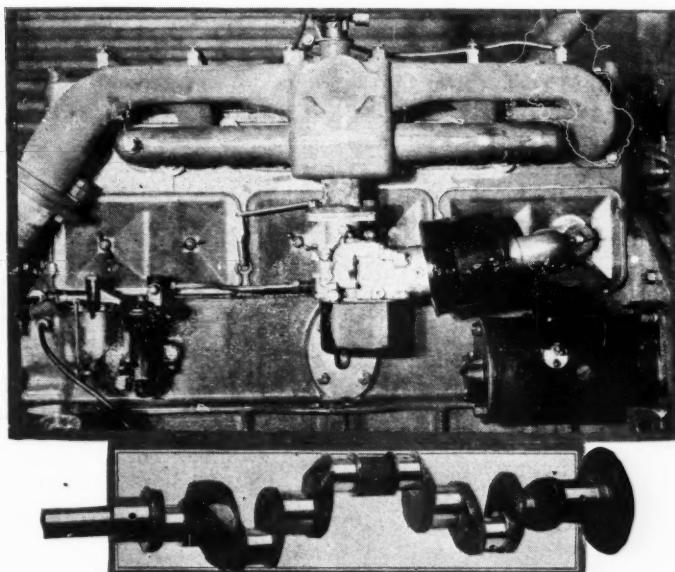
being mounted inside the crankcase. An eccentric on the camshaft also drives the AC fuel pump, located on the right rear side of the cylinder block.

A double precaution against oil contamination is found in the provision of an oil filter and a crankcase ventilating system, part of the air intake to the carburetor being taken from the crankcase. An air cleaner is also mounted in such a way as to segregate impurities from the air which comes through the crankcase as well as that taken directly into the carburetor. With these safeguards the Olds Motor Works recommend oil changes only once in every 2000 miles. Oil capacity is 7 qt.

In addition to the air cleaner and fuel pump, the system consists of a Schebler, air valve type, 1-in. carburetor, while the four-port inlet manifold is jacketed by the exhaust manifold in combination with a manual heat control adjustment. The latter is not operated from the dash, but is very easily operated by moving a self-locking lever on the exhaust manifold. The latter is fitted with a 2-in. exhaust pipe.

In the cooling system a Harrison cellular radiator is combined with a centrifugal water pump mounted in the front end of the cylinder block in unit with the fanshaft, and driven through a 21/32-in. width, 34 5/8-in. length fan belt. As previously mentioned, manually-operated radiator shutters are furnished as standard equipment.

Four-point engine suspension is used, with rubber insulation, the motor being grounded at the left front motor leg for the electrical system. An interesting feature of the cylinder block casting design is the manner in which the sides of the upper crankcase halves have been externally ribbed to eliminate vibration in a horizontal plane in conjunction with the rubber engine mountings. Further, a removable cover is placed over an opening in the left side of the cylinder block, which when removed exposes the interior of the waterjackets. This cover, as well as other metallic parts which come in contact with the cooling system,



Above are the crankshaft and a carburetor-side view of the new Oldsmobile engine, showing fuel pump, crankcase breather and air cleaner

are cadmium plated to prevent corrosion, while chromium plating is used for radiator shell as well as all visible exterior hardware.

The chassis has a wheelbase of 113 1/2 in., an increase of 2 3/4 in. over the previous Oldsmobile. The clutch is a Borg & Beck single-disk unit, with 8 1/8 outside and 6 1/8 inside diameter clutch facings. A feature of this clutch is a triangular rubber insert disk to prevent synchronization of crankshaft and transmission vibrations. Rear axle reduction is 4.81 to 1 and road clearance is 8 in.

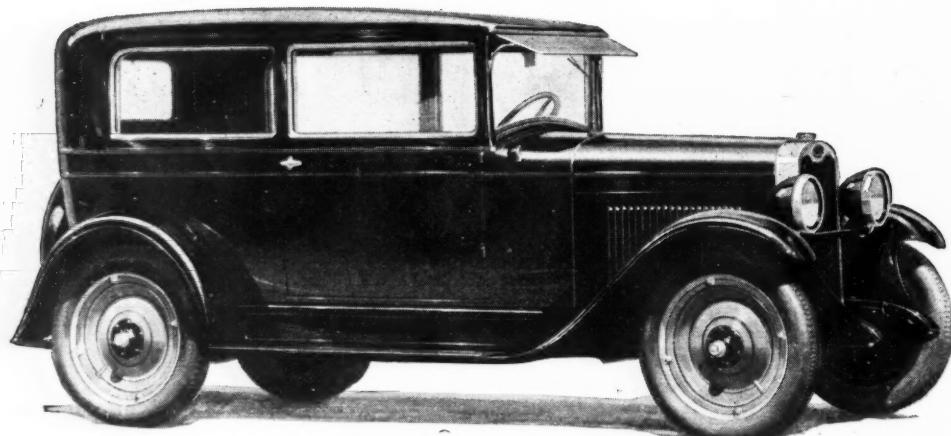
Front axles are of I-beam center section, have reverse Elliott ends, and steering knuckles are fitted with ball thrust bearings. Brake sizes do not differ from last year. Bendix brakes are used at the front and external contracting brakes of Oldsmobile design at the rear. The emergency lever operates rear wheel brakes only.

Springs are semi-elliptic all around, 2 in. wide, and 35 and 54 1/2 in. long at front and rear respectively. Lovejoy shock absorbers are standard, front and rear.

Smaller, 18-in. wheels, mounting 28 by 5.25 tires on 4-in. rims, are standard. These artillery wheels are of the latest design with wide heavy spokes. Disk wheels are also optional on the sport models. A new steering gear is also added, of Jacox manufacture and of the worm and split nut type.

The new frames are exceptionally sturdy in design for a light six.

Headlight equipment of the car includes twin-beam, double-filament bulbs, with auxiliary bulbs in the headlights for parking. Lens diameter is 9 in. A combination tail and stop light is also standard, while the instrument panel is indirectly lighted. Included on the instrument panel, which is of a new and attractive design, are an electric dash gasoline gage and engine thermometer. An interesting little feature, which should prove of value in service, is found on the dial of the oil pressure gage, which is graduated not only in pounds pressure, but also is provided with division showing permissible range of pressure for driving and idling speeds.



Four- for

THERE has been considerable speculation during the last few months on what changes Chevrolet was going to make in its line for 1928. The car has now crystallized into a line of body models which are decidedly more pleasing to the eye, incorporating higher performance due to greater power, better riding qualities due to a longer wheelbase and shock-absorbing springs, and four-wheel brakes, besides mechanical improvements to increase length of life.

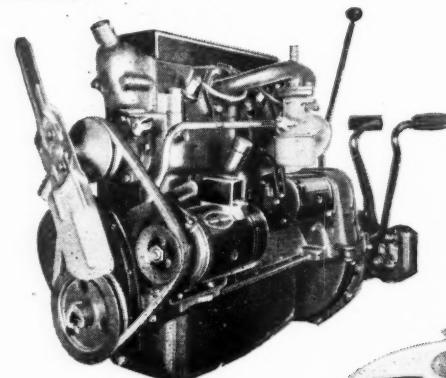
At once apparent in the new bodies are the longer, better-balanced lines, achieved by increasing the wheelbase 4 in. to 107 in. While most of this increase has been taken up by the longer cowl, bodies have also been lengthened out, interior dimensions of the coach having been increased 5 in., while the sedan has $2\frac{3}{4}$ in. more room than formerly. A further improvement in external appearance has been achieved in rounding off roof corners both at the sides and at the rear, while the deeper, higher, and narrower radiator imparts a fleeter and more powerful look to the front of the car.

In keeping with the better-balanced body lines, doors on both sedan and coach are wider, while new color combinations and interior trims are made use of. Inside the cars there is a neat instrument panel, oval in shape, with three oval instrument groups indirectly lighted. The left unit carries the ignition and lighting switch, the speedometer is mounted in the center and the ammeter and oil gage combined at the right. On the extreme right of the panel there is an engraved choke button, balanced on the left of the panel by the windshield wiper switch button on the closed models. Open models retain the hand wiper.

With the increased body space available, seats both front and rear have been deepened for greater comfort. Both cabriolet and landau sedan models now also carry the Fisher VV ventilating windshield. On the touring and roadster the taper from top to bottom of the windshield has also been increased for better appearance.

Equipment includes automatic windshield wiper, on closed models, door pocket in right front door, rear view mirror, stop light and military type sun visors. The coach, sedan and landau also have dome lights, while a foot rest, ash tray and robe rail are furnished in the sedan and landau. Headlamps are also of new design with larger rims, although lenses are unchanged in size.

Leading the mechanical changes is the increased power of the engine, which now develops 35 hp., against 26 formerly, both figures being taken at only



At left is a view of the left side of the higher powered engine of the new Chevrolet

At upper left is shown the new Chevrolet coach with its longer lines

The higher and narrower radiator now used on the Chevrolet is shown at right. Note the false bottom



2200 r.p.m. Several factors are responsible for this increase. Valve size has been increased to $1\frac{21}{32}$ in. from $1\frac{1}{2}$ in. Then there is an entirely new cam-shaft with the lift increased $\frac{1}{8}$ in. to $9/32$ in. In conjunction with these changes, inlet manifold passages have been enlarged by $\frac{1}{8}$ in. in diameter, and larger jets are used in the carburetor. Moreover, the compression ratio has been increased from 4.33 to 4.50. This ratio increase has been obtained by the use of longer pistons, which are now of the invar-strut, aluminum-alloy type, decreasing engine vibration and improving acceleration characteristics. These pistons carry three $5/32$ in. rings above the pin. Further engine changes made toward obtaining quieter operation are found in the provision of two cover plates over the push rods, and redesigned cam tappets, increased in diameter to $51/64$ in.

From the quieter operation angle the adoption of a fabric gear on the cam-shaft for the front end drive is important. Naturally, with the increased lift in the cam-shaft this unit has been strengthened. The shaft itself is $\frac{1}{8}$ in. larger in diameter, with bearings increased proportionately. Crankshaft bearings con-

Wheel Brakes

Chevrolet

*Powerplant Changes Now Make
Possible Development of 35 hp.
at 2200 r.p.m. Wheelbase
107 in.*

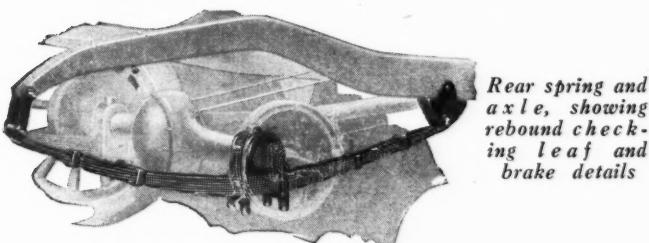
By A. F. Denham

tinue of the same size, except the front bearing, which is now $2\frac{1}{2}$ in. long, having been lengthened $\frac{3}{16}$ in.

Considerable revision has been made in the cooling system. The alloy pistons of course help to dissipate heat more rapidly. Then there is an actual increase in cooling system capacity of about 1 qt., obtained in the larger radiator, the latter being $1\frac{1}{2}$ in. higher and $\frac{7}{8}$ in. narrower. Fastened to the inside of the shell there is also a pressed steel radiator shroud, while a thermostat is incorporated in a casting at the front of the cylinder head in the water outlet from the engine, for better cold weather operation. Incidentally, the radiator drain cock is now placed at the radiator bottom outlet, to enable better draining when desired.

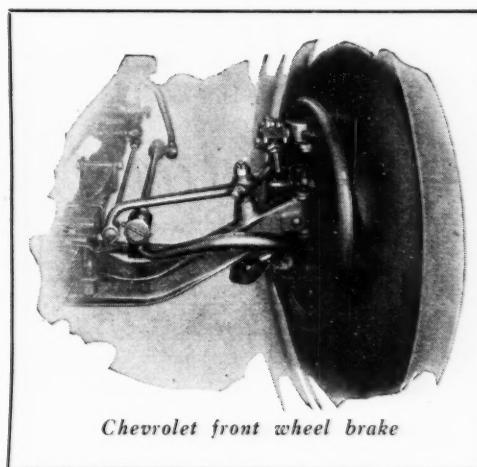
Also contributing to better cooling is the new two-port exhaust manifold. A crankcase ventilating system has also been developed, by leading a $\frac{1}{2}$ -in. pipe from front end of the crankcase into the intake manifold.

Of considerable interest also is the adoption of



Rear spring and axle, showing rebound checking leaf and brake details

four-wheel service brakes. The external rear brakes are more or less retained in their former form, although the cross-shaft at the rear has been eliminated. Front wheel brakes are entirely new. They are of the internal, two-shoe type, the shoes being formed of pressed steel, pivoted at the bottom to a bracket and cam-operated at the top, the cam riding on rollers on the shoes. These cams, moreover, are given a floating mounting, permitting the cam to adjust itself for slight operating variations between the two shoes. An



Chevrolet front wheel brake

interesting brake equalizer system is also used. It should really be called a proportioner, since it is designed so that the front wheel brakes apply first, increasing pedal depression bringing the rear wheel brakes into action, the proportional brake pressure of rear to front wheel brakes increasing rapidly with additional pedal depression. The system which enables this design is composed of double cross shafts amidships, linked together by a C-shaped linkage, the side and upper arm being in one piece, and attached to the cross shaft operating the front wheel brakes, while the lower is a pivoted pressed steel link actuating the rear wheel brake cross shaft, the rod from the brake pedal attaching to the center of the linkage assembly.

It should be noted also that the internal rear wheel emergency brakes are retained as distinctly supplementary brakes. Front wheel brakes take a total of $36\frac{1}{8}$ in. of $1\frac{1}{2}$ in. width, $5/32$ in. thickness lining. The service brakes have a total braking area of 190 sq. in.

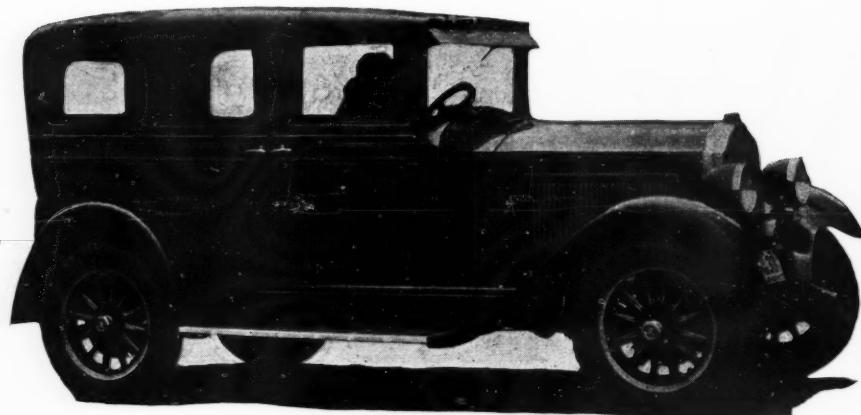
In conjunction with the front wheel brakes, the front axles have reverse Elliott ends, with kingpins increased $3/16$ in. in diameter to $\frac{3}{4}$ in. and provided with ball thrust bearings at the lower end for easier steering. From the latter angle changes in the steering gear are also contributory, the ratio having been increased from 8 to $9\frac{1}{2}$ to one, while ball thrust bearings take the place of wormshaft bushings formerly used.

A new method of shock absorbing is also introduced in the 1928 Chevrolets. Both front and rear springs are fitted at both ends with reversed short spring leaves, which serve to increase the friction between main leaves when the spring is deflected and thus take up the rebound as well as damp the deflection to some extent. These short leaves, having a reverse curvature, are held on to the top of the springs by spring clips, the damping leaves being shaped in the center so that the spring clip bolt locates the leaf in place. It is rather surprising to note the effectiveness of this simple design in improving the riding qualities of the cars.

Another noticeable feature of the new Chevrolets is the greater solidity of the cars. This is probably largely due to the considerably strengthened frame. For instance, side-member depth has been increased from $4\frac{1}{2}$ to $4\frac{3}{4}$ in., with flange widths increased by $\frac{1}{4}$ in. to $1\frac{3}{4}$ in. In addition the lower flange has a turned-down lip which extends from the rear to in front of the front frame cross-member. The latter has also been widened for greater strength.

Willys Standard Six

Low-Priced Willys-Knight



General body lines of the new Willys-Knight Standard Six resemble those of the larger six-cylinder models. Note the embossed door panels

A LOW-PRICED, high-performance, Knight-engined model is added to the Willys-Overland line for 1928. Top speed of 60 to 65 m.p.h., excellent acceleration characteristics, good riding qualities and attractive bodies are features of the new model, which is entitled the Willys-Knight Standard Six.

Developing 45 hp. at 3000 r.p.m., the engine has a bore and stroke of 2 15/16 by 3 7/8, its horsepower rating of 20.7 being the same as that of the engine used in the Willys-Knight 70-A, which is now called the Special Six, while the model designation of the 66-A has been changed to that of Great Six. Piston displacement of the "Standard" Six engine is 157.6 and compression ratio is 5.5 to one.

There are a three-speed unit transmission, a Borg & Beck single-plated clutch, Mechanics Machine Co. universal joints, semi-floating, banjo-type rear axle, I-beam front axle, four-wheel brakes, with Bendix brakes on the front and external brakes on the rear wheels, Hayes wood wheels, taking 29 by 5.30 balloon tires, a worm-and-gear steering gear, and semi-elliptic springs front and rear.

The characteristic fluting of the radiator shell and hood used on Willys-Knight cars is in evidence in modified form. Fenders are full-crowned, and the bodies have a low-hung appearance, emphasized by long horizontal belt lines. Wheelbase is 109 1/2 in.

The engine has four-point suspension, and has separate cylinder head and crankcase. As in the larger Knight engines, a seven-bearing crankshaft is used, having a diameter of 2 1/4 in.

Connecting rods are of drop-forged steel, 9 3/8 in. between center, as compared with the 3 7/8 in. stroke, and have centrifugally-babbitted lower bearings, these being 1 7/8 in. in diameter and 15/16 in. long. Nelson type pistons are used, with four 1/8-in. rings, the lower being of the oil control type. Piston pins are 51/64 in. in diameter and 2 3/4 in. long, and ride in a 1 1/8-in. length bushing in the rod.

Following practice in the larger Knight engines, the eccentric shaft is also mounted

in seven bearings. Eccentric shaft drive is by a 1 1/4-in. width, 3/8-in. pitch automatic adjustment chain.

Lubrication is by pressure feed to main crankpin and eccentric shaft bearings, with spray from the crankshaft bearings to sleeves, pistons and piston pins. The oil pump itself is of the internal gear type, designed to maintain a normal pressure of from 30 to 35 lb. per sq. in. A Skinner oil rectifier is standard equipment on this as well as other Knight engines.

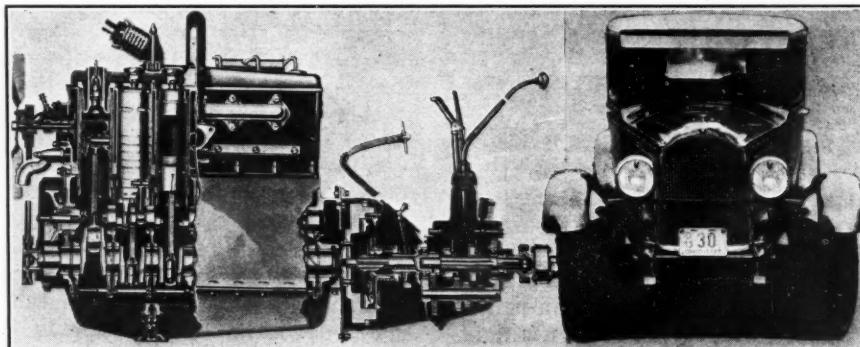
The three-speed transmission and single-plate Borg & Beck clutch are in unit with the engine, the latter taking 1/8-in. fabric lining, disks having outside and inside diameters of 8 7/8 and 6 1/8 in. respectively. Universals are of the metal Mechanics type, two joints being used. A semi-floating, banjo-type rear axle has been adopted, with a standard reduction of 5.11 to one.

Front axles are of I-beam construction, with 6 7/8 in. clearance, and reverse Elliott ends. Front brakes are of the three-shoe, Bendix type, with 11 7/8-in. drums, the shoes being internal expanding. Rear wheel brakes are external contracting. The emergency brake lever operates the rear wheel brake drums.

Steering gear is of the worm and gear type, of Willys-Knight manufacture, and has a reduction ratio of 8 1/2 to one. Wood wheels, mounting 29 by 5.50 balloon tires, are standard.

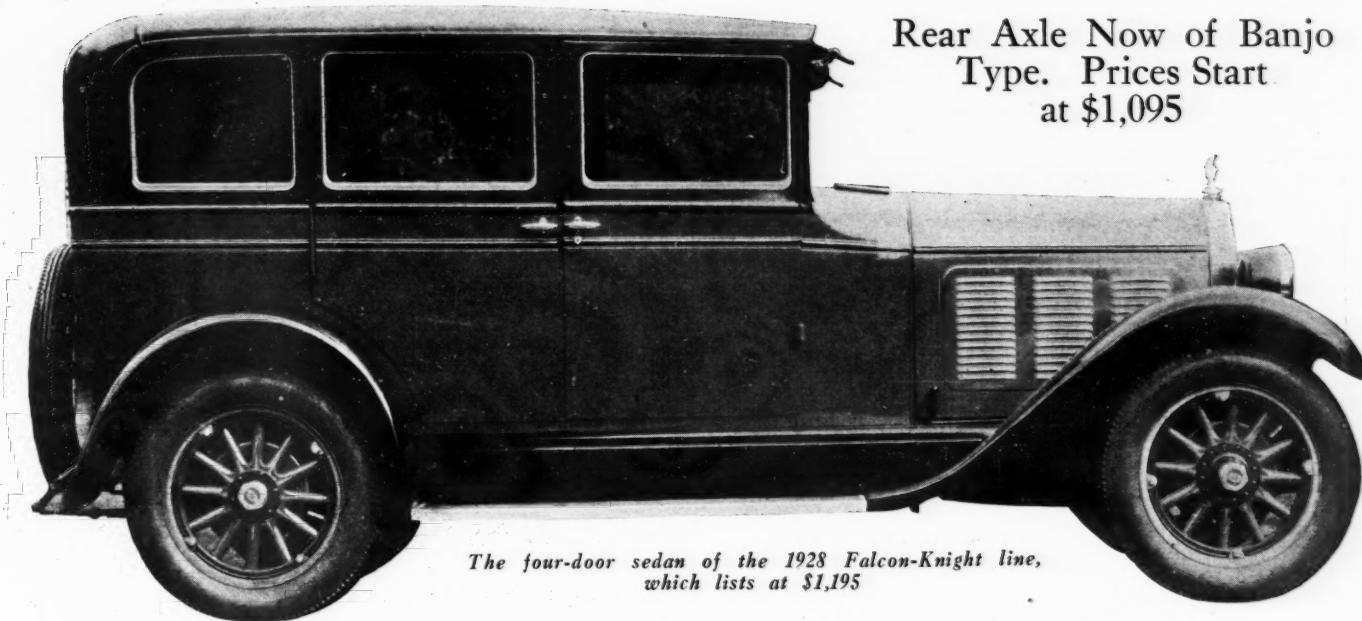
At the present time three body models are scheduled for production, a coupe, a coach and a four-door sedan, the coupe being fitted with a rumble seat. While prices have not been announced as yet, the line represents the lowest-priced, six-cylinder, Knight-engined line ever offered by the Willys-Overland organization.

Included in the standard equipment are dash gasoline gage in addition to the usual instruments, on a decorative instrument panel, automatic windshield wiper built-in, cadet-type sun visor and rear-vision mirror. On either side of the instrument panel there are two medallions which can be removed if desired and replaced by a heat indicator and a clock. The steering wheel is of the three-spoke steel, spider and rim type, hard rubber covered.



Engine and front view of the Standard Six Willys-Knight

Falcon Enlarges Bodies



The four-door sedan of the 1928 Falcon-Knight line, which lists at \$1,195

ATTRACTIVE new bodies are the leading features of the 1928 line of cars introduced by Falcon Motors Corp. Chassis changes have also been made but are relatively minor in character. The new bodies are larger, more substantially built, and body lines and moldings have been improved to give better balance. The major result is a car which, while unchanged in wheelbase, appears and is much roomier than its predecessor. All prices have not been announced but the two-door sedan will list at \$1,095 and the four-door sedan at \$1,195. These cars will remain the lowest priced cars using the Knight engine.

In the engine major changes are confined to the adoption of Nelson invar-strut, four-ring pistons and the incorporation of an electric gasoline fumer in the carburetor for quick starting. The water pump has also been improved, while the oil spray from crankshaft bearings has been increased for better sleeve and piston lubrication.

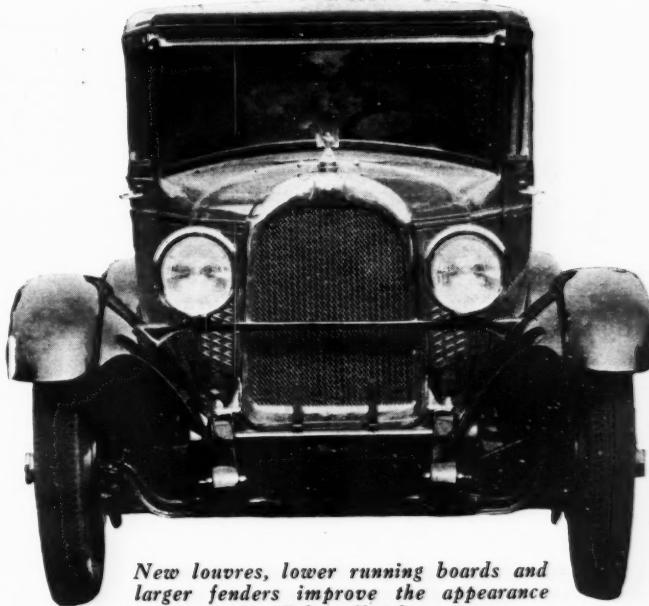
Rear axles have been redesigned, and are now of the banjo type instead of the split type formerly used. Both pinion shaft bearings are now of the Timken taper roller type instead of the former ball bearings.

Full Bendix type internal front and rear wheel brakes are standard on the Falcon-Knight.

Seats and cushions are now upholstered in worsted and mohair mixture with velour sidewall lining. Seats are of the saddle spring type with higher front seat backs on the four-door and adjustable single seats on the two-door sedan. Roof decks are covered with pyroxylin fabric. Fenders are now of the full-crowned type, of two-piece construction but forming in appearance a single-unit fender. They are also wider. Individuality in hood lines is obtained by using three sets of horizontal louvres, while hood lines are more pleasing due to the increased height of the radiator.

Interior dimensions of the car have been increased, there being 1 in. more headroom, between 1 and 2 in. more legroom in the front compartment, and a 1½ in. increase in width of the front seat.

Rear Axle Now of Banjo Type. Prices Start at \$1,095

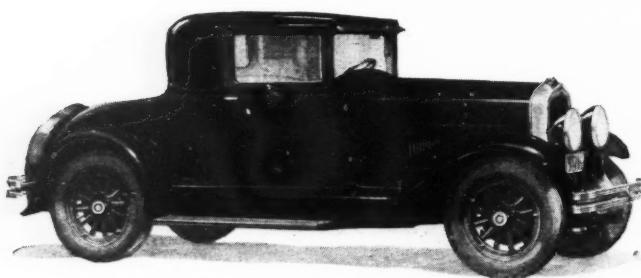


New louvres, lower running boards and larger fenders improve the appearance of the Falcon-Knight coupe

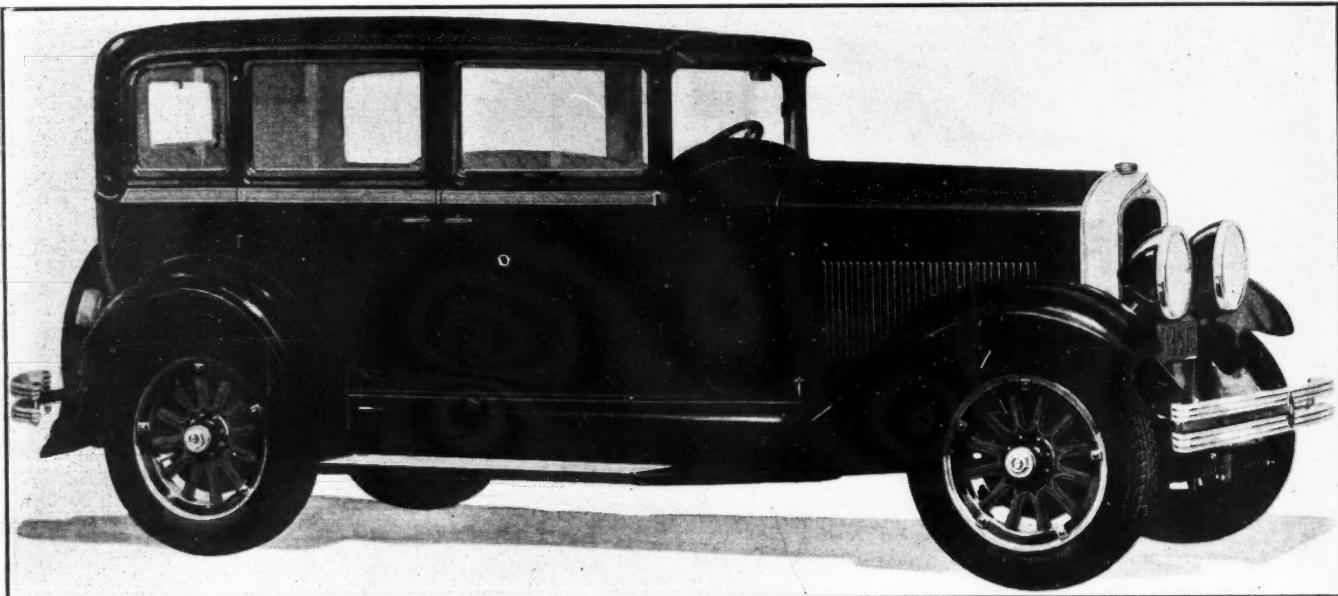
Such accessories as thermostatic cooling system control, gasoline strainer, air cleaner, vacuum oil control, rear view mirror, automatic windshield wiper, combination stop and tail light are retained.

Of the special equipment there is drop-type rear glass in the coupe, the rear deck lid and panel on the coupe being removable to permit the insertion of a box for carrying merchandise where the car is used for commercial purposes. Then there are door pockets on the rear doors of the four-door sedans, dome lights on the sedan models, door locks operating by turning the remote door controls in a reverse direction, and the electric gasoline fumer on all models.

There will be four body styles in the line, a four-door and a two-door sedan, a coupe and a roadster. The first two are already in production.



The new Marmon 68 two-passenger coupe



The graceful lines of the Marmon 68 are apparent in the above view of the sedan

A NEW line of Marmon eights, selling for \$1,395 at the factory, has been introduced by the Marmon Motor Car Co. The new series, known as the 68, follows closely on the heels of the new Marmon 78, a medium-priced line which was displayed by Marmon distributors in December.

By the addition of this second series, Marmon obtains full coverage of the low and medium-priced fields with straight-eight motor cars. Two new plant units, with a combined normal capacity of 400 cars a day, have been placed in operation for production of the new 68 and the 78.

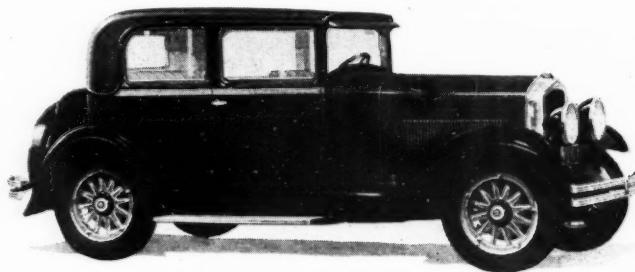
With exception of wheelbase and powerplant, the new 68 follows closely the design of its companion introduced previously. Wheelbase is 114 in. Three body styles, a five-passenger sedan, four-passenger victoria coupe and two-passenger coupe will constitute the line for the present.

Instead of the familiar overhead valve construction employed in previous Marmon lines, the new 68 has an L-head engine with the combustion chamber so designed as to give high turbulence. With a compression ratio of 5.25 the engine has been designed particularly for operation with the newer fuels now on the market.

Bore of the engine is $2\frac{3}{4}$ in., the stroke is $4\frac{1}{2}$ in., and waterjackets run the full length of the piston travel. Piston displacement is 201.9 cu. in. Maximum brake horsepower of 72 is developed at 3200 r.p.m., and the S.A.E. horsepower rating is 24.2.

The engine is entirely of Marmon manufacture, even the split-skirt, aluminum-alloy pistons being cast and machined in the Marmon shops. Eight cylinders are cast *en bloc* of grey iron, the crankcase upper half being integral. The camshaft is driven by Diamond

Smaller Straight Marmon



The Victoria coupe of the Marmon 68 line

double roller chain with 62 links and a pitch of $\frac{3}{8}$. Intake valves are forged steel with a nominal head diameter of $1\frac{15}{32}$ in., a lift of $21/64$ in. and grooved stem ends. Spring pressure is 70 lb. and tappet clearance is .006 to .008 hot. Silchrome exhaust valves are used with a nominal head diameter of $1\frac{11}{32}$ in.

The drop-forged, double-heat-treated crankshaft is mounted on five bronze-backed, babbitt-lined main bearings with a diameter of $2\frac{1}{8}$ in. Lengths of main bearings from front to rear are $1\frac{5}{8}$ in., $1\frac{1}{16}$ in., $1\frac{3}{4}$ in., $1\frac{1}{16}$ in. and $1\frac{3}{4}$ in. The center bearing takes the thrust, and end play tolerance is .004 in. A torsional vibration damper is employed.

Connecting rods are of steel with a center to center length of $8\frac{1}{2}$ in. The rod is split on the center line, and is clamped to the piston pin which floats in the piston. Crank pin diameter is 2 in.

Pistons are $3\frac{1}{4}$ in. in length and use three rings. Piston pins are $2\frac{7}{16}$ in. long and $\frac{3}{4}$ in. in diameter.

Main bearings, connecting rods and camshaft bearings are lubricated by pressure from the gear oil

Eight Added by for 1928

Powerplant is of L-Head
Design With Displace-
ment of 201.9 Cu.In.
New Line Gives
Marmon Coverage
in Low and Me-
dium Price
Fields

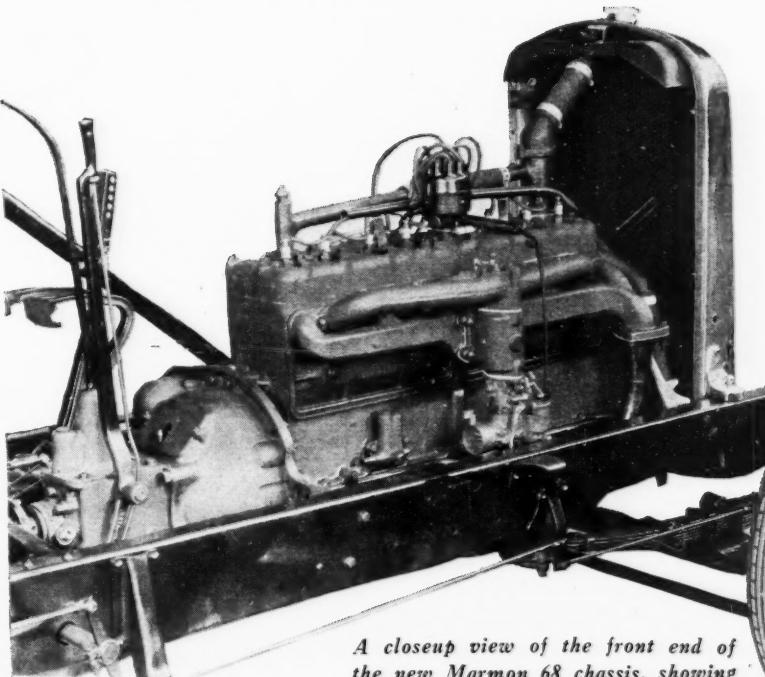
pump. The timing gear is oiled by nozzle spray. Normal pressure is 40 lb. and crankcase capacity 6 qt.

The new car has been designed for continuous operation, if necessary, at 65 to 75 m.p.h. It accelerates from 10 to 50 m.p.h. in 15 to 16 sec.

The cars are low in appearance and the roomy interiors are suggestive of a longer wheelbase. The Marmon triangle has been worked into the design of the high, narrow radiator and fenders are of the full crown type with deep side aprons.

As in the 78 particular attention was paid in the 68 to the design and arrangement of the seats. Tread of the 68 is the full standard 56 in., allowing wider cushions and making possible ample room for three passengers on the rear seat. Form-fitting back and seat cushions are unusually deep. The victoria coupe has been so designed inside as to allow the same leg and head room as in the sedan.

Gearshift and hand-brake levers are placed in a



A closeup view of the front end of the new Marmon 68 chassis, showing the right side of the motor

is equipped with a steering column that is adjustable for tilt to suit the individual requirements of the driver. The wheel is large in diameter with a ribbed grip. Instruments are grouped in an engine-turned panel in the center of the instrument board and are indirectly illuminated.

The new 68 is equipped with Bendix mechanical brakes, and both the service and hand brakes operate on all four wheels.

Long semi-elliptic front and rear springs are mounted in rubber shock insulators similar to the ones used on the 78. Lovejoy hydraulic shock absorbers are placed on all four wheels. Front springs are 38 5/16 in. long and rear springs are 56 3/8 in. Employment of the shock absorber equipment enables the use of unusually soft and free-acting springs.

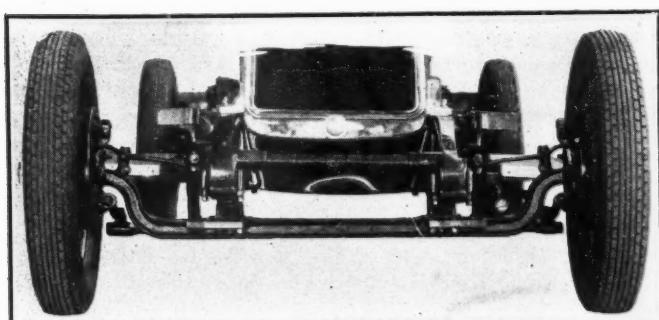
One-eighth inch frame stock is molded into a channel section 6 in. in depth, and the frame is braced by a steel plate at the rear, a gusseted channel section in the center, a tubular cross-member in the front and the four engine supports.

The duplex, down-draught manifold used on the new 78 engine is also one of the distinctive features of the new 68. The double construction eliminates the so-called wet spots and adds to smooth performance as well as aiding cold weather starting. A Stromberg carburetor with a second jet for high speeds and an acceleration well feeds both sections of the manifold.

Overall length of the car, with bumpers, is 174 3/4 in. Minimum road clearance is 7 1/2 in., and tires are 29 x 5.25 balloon.

The chassis is lubricated by pressure through Alemite-Zerk fittings. Theft-proof Fedco numbers, mounted on the left side of the instrument board, are supplied as standard equipment.

The new 68 cars are equipped at the factory with Lovejoy shock absorbers, front double-bar bumper, rear double-bar bumperettes, spare rim, vacuum type of windshield cleaner, side curtains on open cars, remote control door locks and tonneau lights on closed cars, motor-driven Klaxon horn, car heater, cowl ventilator, artillery wheels with disk optional, sun visor, rear traffic signal, vanity set, smoking set and transmission lock.

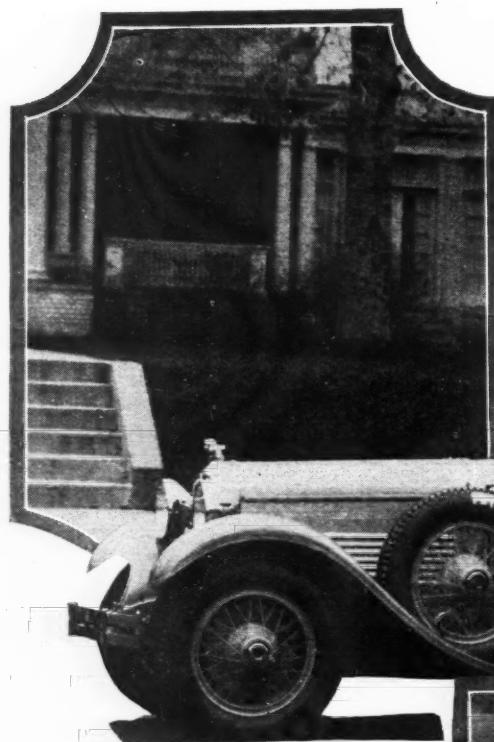


Front view of the Marmon 68 chassis

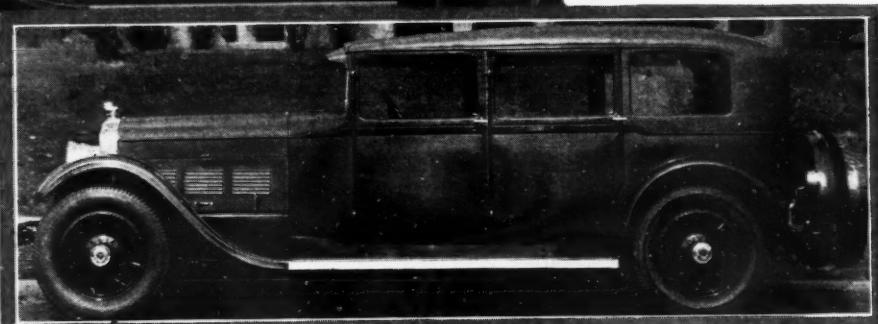
forward position to allow the passenger to enter from the driver's side or vice versa. Doors on all three bodies are unusually large.

A variety of jewel color combinations will be available for all three body styles. Exterior finish and interior treatment will harmonize in all combinations. All bodies are upholstered in mohair and, silver-finish hardware is employed throughout.

Following one of the features of the new 78, the 68



Right: The seven-passenger Aix-le-Bains limousine of the Stutz BB series. The body is by Weymann



Stutz Places Color

Left: The two-passenger speedster of the Stutz BB series

EVERY car as exclusive as a Paris gown. This announcement, the result of new color combinations, introduces the 1928 Stutz at the New York and Chicago shows. Greater speed and a highly refined engine are no less important features in the company's latest development.

Every color combination will be arranged by an expert. Although the difference between each car of each body type may be only in the striping, the designers of the new car are determined that each shall be exclusive and uphold the tradition of custom-built products.

In addition to the new color policy the car has been refined to add smoothness, sturdiness, quietness, power and speed. Sturdier chassis construction throughout has been effected and a number of changes have been made in equipment, bodies and interior fittings.

Appearance of the new cars has been enhanced by the use of full-length, horizontal hood louvres, which are expected not only to add to the low appearance but also to improve ventilation.

The bodies are lengthened 4 in. and made $2\frac{1}{2}$ in. wider. The top has been flattened to place the almost imperceptible high point in the center rather than toward the rear as in the former models. The front of the top has been cut off at a French curve and a cadet-type visor replaces the former roof extension. The windshield is 2 in. greater in height, increasing visibility. Headroom in the front compartment also is increased at no expense to the overall height of the car.

Fundamentals of the Challenger-type engine, which has powered the Stutz models for the last two years,

are unchanged. Brake horsepower of the new engine is 112 at 3600 r.p.m. Thus approximately 20 hp. has been added to the engine without changing the bore and stroke. This gain, in considerable measure, is due to the dual ramshorn type of intake manifold, the passages of which are independent of each other. The outer section feeds cylinders 1, 2, 7 and 8, and the inner section feeds cylinders 3, 4, 5 and 6. A new type of dual Zenith carburetor with an acceleration well distributes the gas into both manifold sections. The Auto-pulse, an electric fuel pump, is standard on the two and four-passenger Blackhawk models, and is optional on the others.

The cylinder head has been redesigned to create water passages between the valves, which are now water-jacketed throughout.

Compression ratio of 5 to 1 with cast-iron pistons is standard in all models of the new series with the exception of the Blackhawks, which use Bohnalite pistons with a 5.5 to 1 ratio. The latter piston equipment is optional on other models and additional special pistons are available for high altitudes or where non-detonating fuels are used, giving a compression ratio of 6 and 6.25 to 1.

The shorter wheelbase models now have the larger

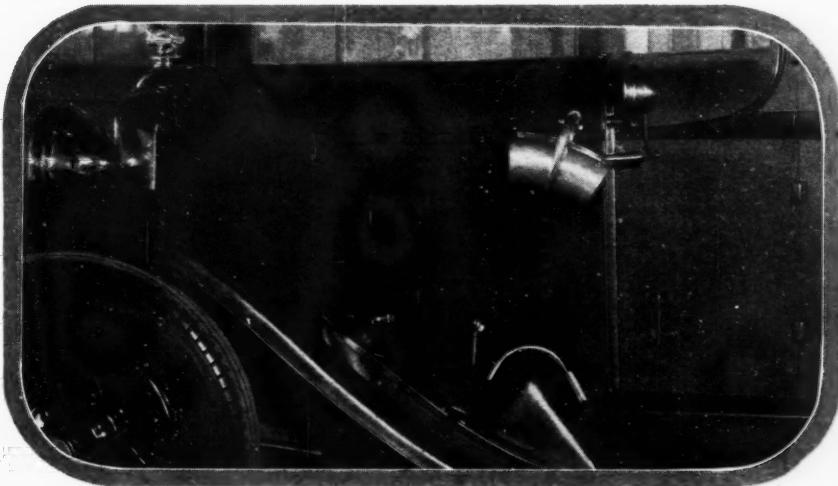


The intake manifold on the 1928 Stutz engine

Emphasis on Exclusive Jobs

Faster and More Powerful Engine is Added Feature of the Lines for the New Year

By M. Warren Baker



Above is illustrated the long horizontal louvres in the Stutz BB series, also the side tire mounting fixture and the new type of steering arm housing

transmissions previously used only on the seven-passenger chassis. The transmission brake effectiveness is multiplied by increasing the diameter of the drum from $6\frac{1}{2}$ in. to 8 in. and its width from 2 to $2\frac{1}{2}$ in.

A new type of transmission lock is located on the top of the gearshift lever and locks by pushing down the movable ball end of the lever and engaging a small finger catch just below the ball end. Thus the transmission is locked without using the key.

Universal joints are larger than before and are equipped with a double oil seal. Propeller shafts, formerly $2\frac{1}{2}$ in. in diameter, also have been enlarged, those on the shorter chassis to $2\frac{3}{4}$ in. and those on the 145-in. wheelbase chassis to $3\frac{1}{2}$ in.

Sturdier axle construction, both front and rear, has been effected. King pin bushing walls have been doubled in thickness. King pins have been increased from $13/16$ in. to 1 in. in diameter and the inclination is $7\frac{1}{2}$ deg. The king pins are still lubricated by the Myers system used throughout the chassis, but Alemite is

used on the cross tie rods. Wheels now are given 1 deg. of camber. The cross tie rod is newly designed, is larger than before and has right and left threads at either end, allowing absolute accuracy of adjustment. There is a spring damper with greater capacity in the tie rod, which not only acts as an anti-rattler, but also damps out shimmy. The inner end of the wheel hub has been extended into an oil baffle pocket to keep the lubricant away from the brake drum.

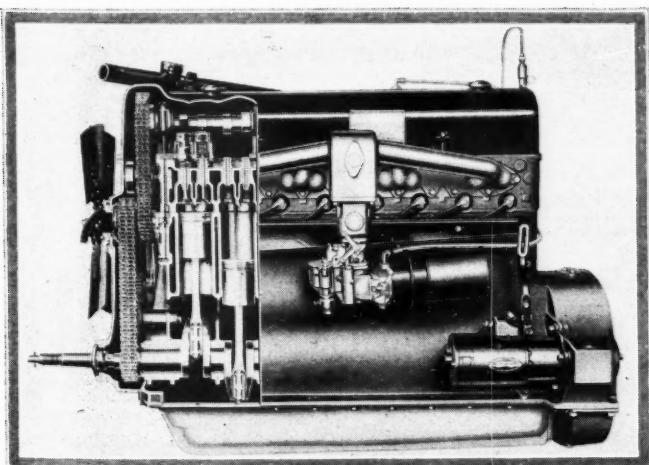
The Timken worm rear axle used on the 131-in. chassis has been increased to the size used on the seven-passenger chassis. The double reinforced rear axle housing formerly used on the seven-passenger models also is now standard on all chassis. Front axles also are now the same on both chassis with the exception of 1 in. difference of center bed drop, giving both models exactly the same road clearance.

Slight changes have been made in the differential to add rigidity and reduce backlash. The pinion ring differential block is now made in two pieces instead of four. Differential cluster is riveted instead of bolted together for greater strength. A double oil seal is employed in the axle housing in the rear wheel bearing to protect the brake drums from oil.

Instead of the Timken hydrostatic brakes with which Stutz models have been equipped ever since introduction of the eight two years ago, Lockheed internal expanding brakes with an automatic compensating device are now used as standard equipment. Brake drums are 16 in. in diameter, making this the first passenger automobile ever to use Lockheed internal brakes of so large a size. The outer rim of the brake drum is flanged to add rigidity.

Ther-mo-cool equipment has been added as standard on all models except the Blackhawks, on which it is optional. Back pressure from the exhaust has been reduced by enlarging the tail pipe so that there is now a difference of only about 1 m.p.h. in operation with the cut-out open or closed.

Another important change is that which makes front wheels interchangeable on all models.



Cutaway view of left side of Stutz engine, illustrating overhead camshaft, valve system and water jacket changes

Hupp Augments Line With Smaller 8

Double Intake Manifold in Combination With Dual Carburetor Makes for Greater Power. 120-in. Wheelbase Chassis Has Entirely New Frames. Bodies Low-Hung

HUPMOBILE now has an entirely new straight eight in addition to the present eight and the new six-cylinder model recently announced. The new model is considerably lower in price than the 125-in. wheelbase E-3 model, although actual prices have not been announced at the time of going to press.

Being mounted on a 6-in. longer wheelbase than the six-cylinder car, the actual figure being 120 in., body designers were in possession of considerable latitude and were enabled to emphasize various body characteristics resulting in a body which appears to be much longer than the wheelbase would indicate, a body which is low-hung and graceful.

On the engine there is a double intake manifold in combination with a dual carburetor. Thermostatic controls are widely used, these being found on the carburetor, in the cooling system and on the radiator shutters.

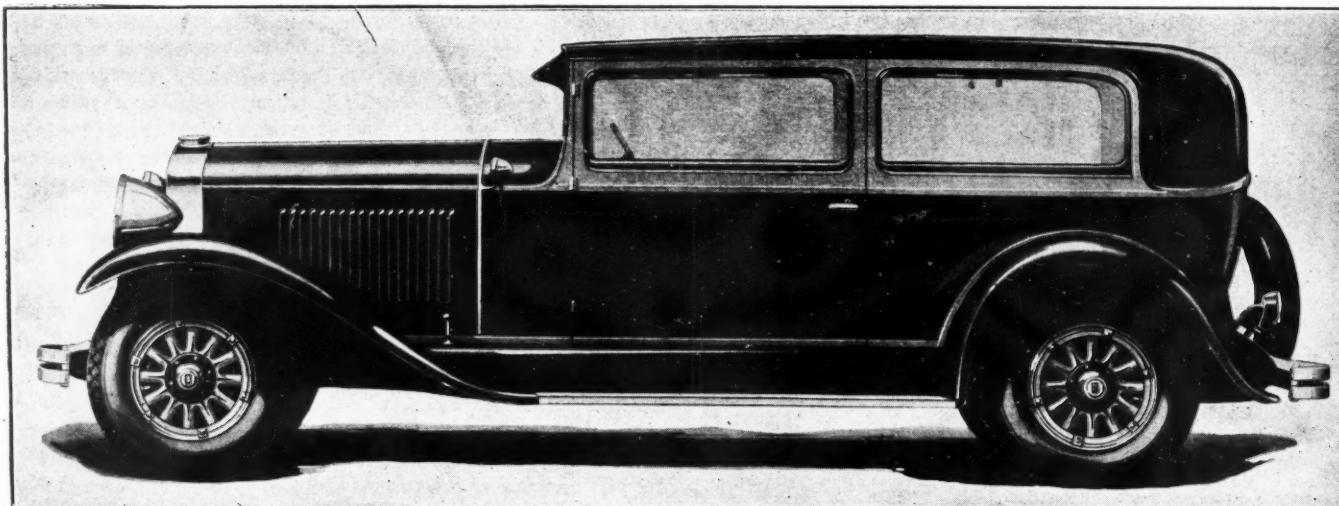
Universal Products universal joints are used, while the rear axle is almost identical with that used in the larger eight-cylinder car. Steering gear is of the straight ratio Ross cam and lever type. Frames are entirely new and exceptionally rigid in design, with a total of seven cross-members. Springs are semi-elliptic all around, front springs are shackled at the front end

for easier steering, and Stromberg shock absorbers are standard all around.

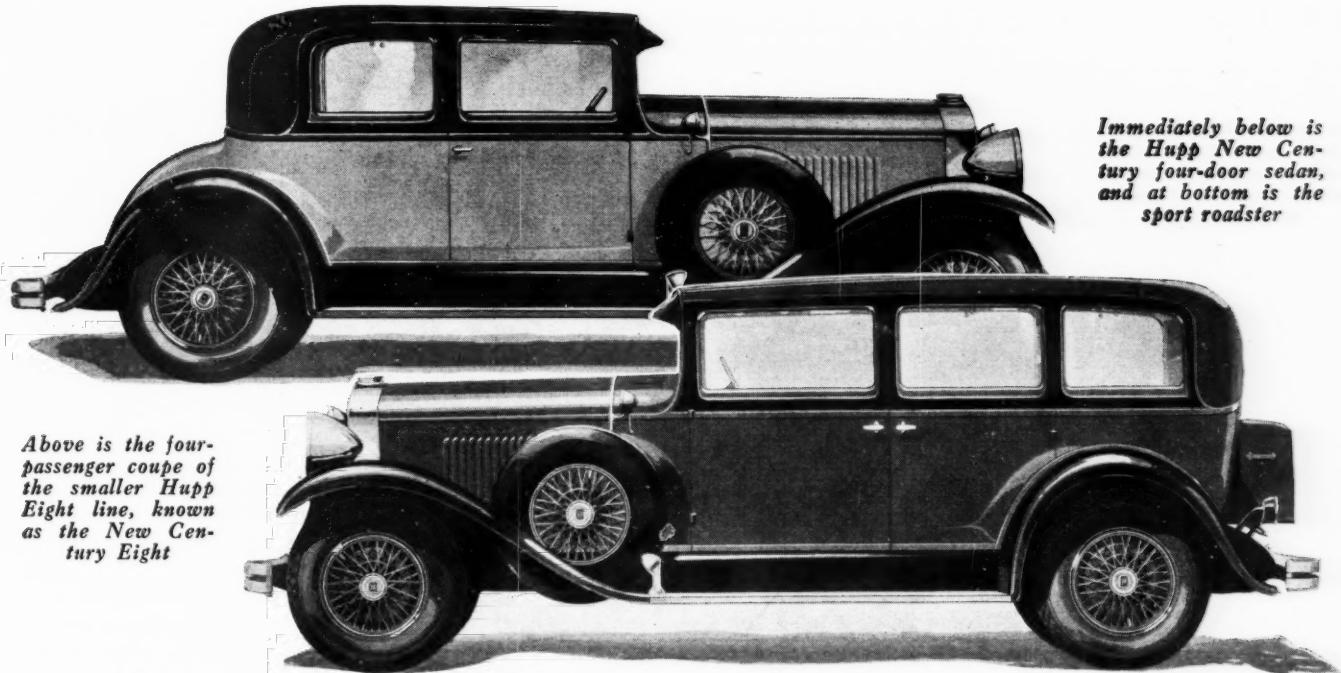
Headlamps, radiator shells, the central part of the headlamp cross-bar, hood hinges, door handles, bumpers, cowl bands and side lamps are all chrome-plated.

Although the main dimensions of the Hupmobile eight-cylinder engine are retained, there is considerably more power developed due to a new manifolding and carbureting system, while a low rear axle reduction, 4.36 to 1 on all except the roadster, which has a ratio of 4.07 to 1, contributes to both a higher top speed and longer life, engine revolutions at 60 m.p.h., having been reduced from 3100 to 2990 r.p.m.

In the crankcase ventilating system used by Hupmobile the air intake is in the flywheel housing. In principle, the rotating flywheel acts as a centrifugal blower to some extent, and forces the air into the crankcase, passing on through the valve chamber and out through a pipe extending into the air stream below the motor pan. Connecting rods are now rifle-drilled for pressure feed to the pin bearings, which are now in the rod. Impurities in the oil are taken out by a Handy oil filter whose position is between the pump and the main bearings, insuring clean oil. The oil filter is provided with a spring-controlled by-pass to prevent stoppage of oil flow in case the cleaner should become



The two-door sedan of the new Hupp Eight has very long windows, giving it an appearance of greater length



Above is the four-passenger coupe of the smaller Hup Eight line, known as the New Century Eight

Immediately below is the Hup New Century four-door sedan, and at bottom is the sport roadster

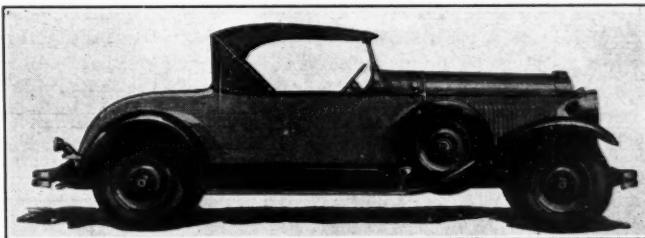
clogged, or when the oil is cold. Oil pressure, incidentally, is quite low for an engine of this size due to the large passages provided, being 20 lb. at 25 m.p.h. An air cleaner is also mounted on the ventilating system air intake.

Unit transmission is conventional and of Detroit Gear manufacture. In the single-plate, Long clutch, the vibration damping device is of primary interest. There are six lugs on the clutch plate and six on the clutch shaft flange, circumferentially arranged. Between each clutch and shaft flange lug there is a coiled compression spring, taking care of sudden shocks on the mechanism and torsional vibration. Between the clutch plate and the shaft flange is inserted a ring of friction lining. The clutch plate itself is attached to the clutch shaft flange by spring-loaded bolts, bolt holes in the plate being oval in shape to permit of relative motion of plate and clutch shaft under shocks or torsional vibration.

A change in the front-end construction is found also in the king pins, which are now fitted with Timken roller thrust bearings with but very slight taper.

In the new frames a depth of 7 in. is used for the side-members, combined with 2 3/16-in. flanges, 5/32 in. stock being used. The lower flange in addition has a turned-down lip for greater rigidity, this lip being carried forward to in front of the front frame cross-member. There are seven cross-members all told, five channel and two tubular. In this frame design the first channel member, on which is mounted the McCord cellular radiator, no longer carries the front motor supports. As a result there is less channel depth at the center of this member, permitting a lower mounting of the radiator. At the ends, this member increases to full frame side member depth, the motor-support, horizontal plate being riveted to this section. This motor-support plate, which is approximately triangular in shape, is also riveted to the lower frame side-member flange, while a turned-up flange at the rear is riveted to both channel and top flange of the side-member. The long side of this bracket also has a turned-down lip for greater strength.

Rear motor supports have also been strengthened. In the usual type of side-member, engine-support bracket, these are riveted to top and bottom flanges of



the side-member. With such a mounting, however, there is a certain amount of up and down pivoting action since it is not always possible to keep bracket surfaces perfectly flat in production. When such action exists a good deal of the frame-stiffening action of the rear motor supports is lost, since side-members can then twist to some extent. By riveting the motor bracket to the channel part of the side-member, as is done in the Hupmobile M-8 this trouble is overcome, and the rear motor supports function as an effective, additional frame cross-member.

A further addition to the frame is the provision of a reinforcing flange in the form of a rib at the bend in the frame side member for the front axle kick-up. This flange is in the form of a channel rib and is riveted to both side member flanges and the channel part.

Brakes on the M-8 are of the Hupmobile-Midland steeldraulic type, a description of which was included in the announcement of the new Hupmobile Six in MOTOR AGE, Oct. 27. The same brakes are also operated by the emergency hand lever.

Both front and rear springs have widths of 2 in., the front spring being 37 and the rear 57 1/4 in. long, nine and eight leaves being used for front and rear respectively. Wood wheels are standard on the new eight, these being of Kelsey manufacture, while Motor Wheel disk or wire wheels are available at slightly added cost. These wheels are of the 19-in. size, carrying 4 1/2-in. rims, and mounting 31 by 6.00 balloon tires.

Chassis lubrication is by Alemite connections. Other chassis specifications include Delco-Remy, four-point, double-breaker distributor, Auto-Lite generator and starter, 1 1/2-in. diameter radiator hose connections, with

(Turn to next page, please)

NEW BODIES ON PONTIACS FOR 1928

(Continued from page 29)

front axle tie rod has been adopted. It has ball joints, and is provided with a simple take-up by using left and right threads at the ends, with locking clamps locating them in position. Front wheels are mounted on ball bearings as formerly, but the bearings are closer together. The front wheel brakes are of the two-shoe type, the shoes being of pressed steel pinned at the lower ends to a bracket, and cam-operated at the upper end, with a floating cam-mounting.

Equalization of front and rear wheel brakes is obtained by the use of double rocker cross-shafts amidships of the frame, the equalizer being mounted between the cross-shafts. The internal rear wheel emergency brake is retained.

A new design of steering gear has been adopted for the new series. The leading feature of this gear is that the half nuts are guided on each side in the plane through which they are split instead of at the back as formerly, this change having been effective in reducing "binding" of the gear. Bronze is now used for the half nuts instead of cast-iron. Screw diameter is larger, and screw and nuts are burnished. The steering column has also been lengthened out by $1\frac{1}{4}$ in.

Heavier construction is used for the frame which now has a kick-up over the front axle as mentioned. Side rails have been increased $\frac{1}{2}$ in. in depth to 5 in. and cross members made heavier. The rear cross member has been replaced by a wide pressed steel pan, riveted to both upper and lower side-member flanges. Full

side-member depth is carried to in front of the front spring rear support for greater stiffness at the front. There are now also three running board hangers instead of two, the front hanger serving also for the front fender rear support, the latter being made of heavier sheet stock than formerly.

Included also in the chassis changes is a more efficient muffler, of the same type as used in the Oakland, and designed to reduce back pressure. It, as well as the gas tank, is more rigidly supported by pressed steel brackets. Tire and wheel sizes continue unchanged. Wheels, however, have heavier spokes and larger hubs.

Inside the cars the instrument panel is striking. In three sections, as on the Oakland, the center section with an antique metal backing mounting a hydrostatic King-Seeley gasoline gage in addition to the usual instruments, while at either side are placed the switch units, including the coincidental gearshift and ignition lock in addition to the double-filament headlight control switch which has a position for switching on the stop light while backing up.

Included in the standard equipment on all models are automatic Trico windshield wiper, King-Seeley dash gasoline gage, and rear view mirror. The closed models have built-in sun visors with nickelized brackets. On the new four-door sedan, and the sport sedan, which takes the place of the former landau sedan, there are also foot rests, and robe rails, while the latter model also is equipped with a front bumper and rear fender guards.

Studebaker Adds a Straight-Eight Series to 1928 Line

(Continued from page 31)

pressed steel bracket above the cylinder head, while rubber nipples fitting over spark plug terminals provide a further moisture seal.

Starter and generator are also of Delco-Remy make, with manual shift starter engagement. Cooling system includes water pump mounted in cylinder head in unit with fan, fin and tube type Long radiator, four-bladed fan on a ball-bearing shaft, driven by a $\frac{7}{8}$ in. Vee-belt, $4\frac{3}{8}$ in. long, which also drives the generator, and thermostat control in cylinder head water outlet.

In unit with the engine is the conventional three-speed Warner transmission, with gears forged integrally on the countershaft, and main shaft mounted on ball bearings. Gear reduction in low speed is 3.24 to 1, with 1.96 to 1 in second.

Springs are semi-elliptic all around, the front springs being 38 in. long and 2 in. wide, while the rear springs, which take both torque and propulsion, are $2\frac{1}{2}$ in. wide and 60 in. long.

Service brakes are of Bendix manufacture, on all four wheels, while a separate transmission brake is provided for the emergency hand lever. Service brake drums are $13\frac{5}{8}$ in. in diameter and 2 in. wide, while the transmission brake is 8 in. in diameter with a width of 2 in.

Steering is by a Ross cam and lever straight ratio 16 to 1 reduction gear, Timken taper roller thrust bearings being used in steering knuckles. Balloon tires, 31 by 6.20, are mounted on 19-in. wood wheels on the standard models, the de luxe or state models having six demountable wire wheels.

Body construction is combination wood and steel, the front end being of the clear vision all metal construc-

tion. Upholstery is two-tone broadcloth or mohair, with seats form-fitting in shape, having double-deck seat springs. Standard equipment includes Hershey coincidental steering and ignition lock, draw shades, toggle grips, arm rests, vanity case and smoking set, cigar lighter in rear compartment, foot rests, door pockets, double filament headlight bulbs, cowl lights and band, dome and rear corner light, rear traffic signal, automatic windshield wiper, rear vision mirror, clock, electric dash gasoline gage, dash engine thermometer, trunks on five-passenger and folding racks on seven-passenger models and Monroe hydraulic shock absorbers front and rear. Bumpers are standard on state sedans.

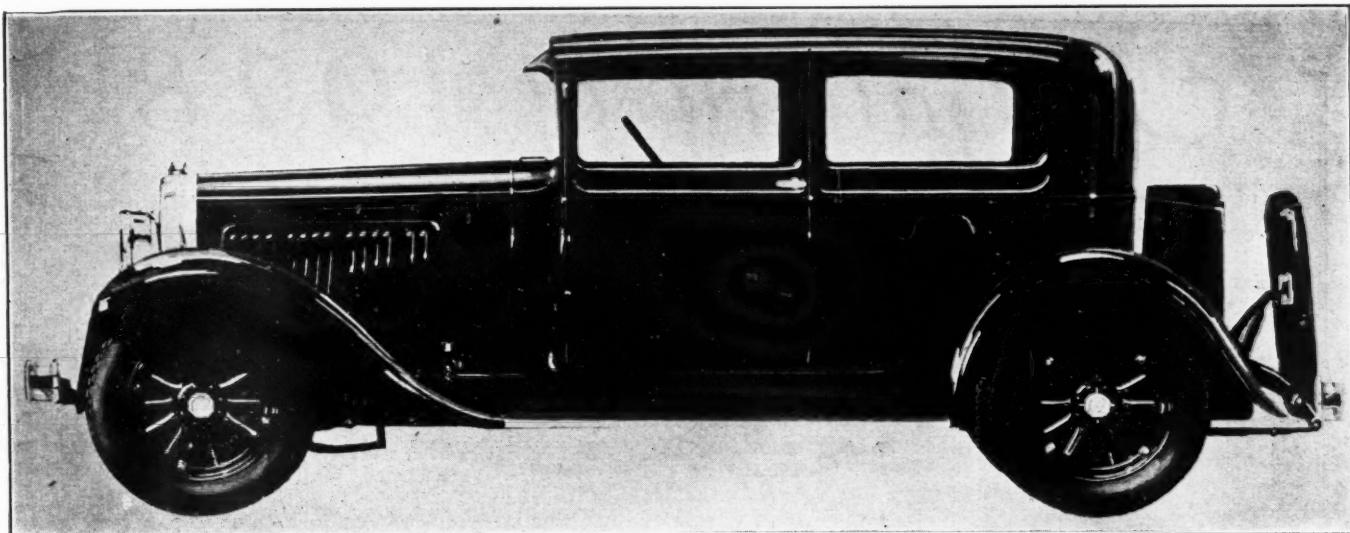
Hupp Augments Line With Smaller 8

(Continued from page 47)

lengths of $6\frac{3}{8}$ for the upper and $3\frac{5}{8}$ in. for the lower hose, V-type fan belt, Willard 118-amp. hr. storage battery, transmission low gear reduction of 3.11 to 1, double-filament headlight bulbs, and thermostatically-controlled radiator shutters.

Standard equipment on all cars includes Stromberg shock absorbers all around, Trico automatic windshield wiper, built-in sun visor, cowl ventilator, Hall combination stop and tail light, National Gage Co. dash engine thermometer, dash gasoline gage, cowl lights, vanity and smoking sets, and Electrolock, distributor grounding ignition anti-theft lock. The brougham and the custom models are also equipped with trunk racks.

As has been mentioned, the various engine improvements made on the M-8 have also been carried out in the larger E-3, eight-cylinder line, which now also has cowl lights mounted on chrome-plated cowl bands, and two side cowl ventilators as standard equipment.



The new Dodge Victory Six brougham

Unusual Body Construction in Dodge *Victory Six*

UNUSUAL frame and body designs are the outstanding features of the new Dodge Victory Six.

Mechanical units are conventional in design and construction, and body lines do not depart largely from the conventional.

Prices have been announced as ranging from \$1,045 to \$1,170 with the sedan listing at \$1,095.

Leading in interest in the new car, which rounds out the Dodge Brothers line, and which will be marketed in addition to the four-cylinder and Senior Six lines, is the frame and body construction.

On the Dodge Victory Six the body has been built in such a manner that the seats mount directly on the frame and the body itself merely forms an enclosure. The method of achieving the desired result is by covering the top of the chassis with sheet metal, forming the floor and seat pans for the body, mounting the seat backs on the frame and hanging the body from the frame sides rather than mounting it on top.

The frame is unusually light, $\frac{7}{64}$ in. stock being used. Rigidity is obtained with this light material by unusually deep side and cross-members, of which there are four, all cross-members except for the front tubular member between the spring-horns being of channel section. Side members have a depth of 8 in. at the center, are tapered forward and reinforced and have $1\frac{1}{2}$ in. flanges. Narrowness of the flanges is made possible with this light stock through the use of the two steel pans which cover the rear half top of the frame and are recessed for leg room, these pans being in addition to and over the frame cross-members.

Body sides in cross sec-

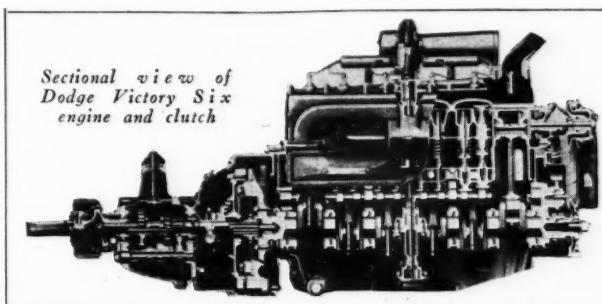
tion are box shaped, the inner panels being formed similarly to the outer in one piece for each of the two body sides, and attached to the outer panels by lock-seams, spot welded.

Simplification in construction was probably also the primary cause for forming the garnish moldings around windows as part of the door or side panels. This construction, however, has the added advantage of eliminating screws and errors in assembly.

This garnish molding is quite attractive and the elimination of assembly errors incident to this type of design should insure windows always being tight, with rattles eliminated. In order to do away with body rumble in this all-steel body, $\frac{1}{4}$ in. felt padding is pasted under the trim directly to the body panels. Anti-squeak lining is also used between all metal joints.

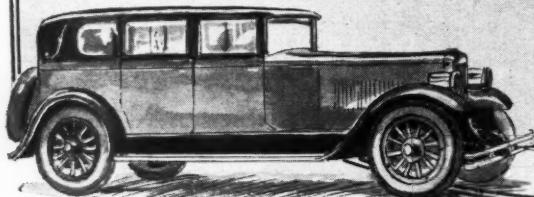
Outside the bodies, one of the most striking features is the attractive type of one piece full crowned fender used. This fender has a bead around the edge and a central bead over the full length, the latter blending into the edging beads at its ends. An unusual constructional feature is also found in that the running boards attach to the frame with no splash shields, the deep frame side members making the use of the latter unnecessary.

Mechanically the new car is more or less conventional. In the six-cylinder engine probably the most interesting feature is its nearly square bore and stroke ratio, these being $3\frac{3}{8}$ and $3\frac{7}{8}$ in. respectively, giving a piston displacement of 207.9 cu. in., and a rated horsepower of 27.3. In general design the new engine closely resembles the Senior Six.

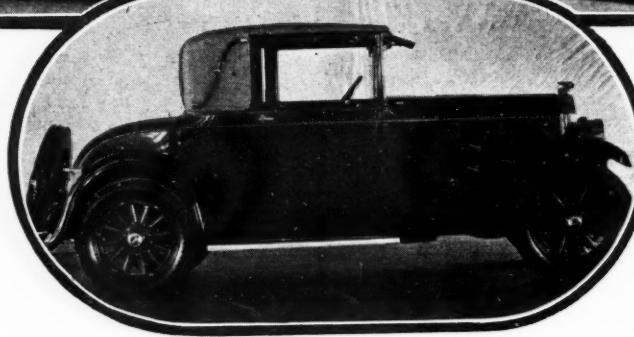


Sectional view of Dodge Victory Six engine and clutch

A Gallery of 1928 Automotive Art

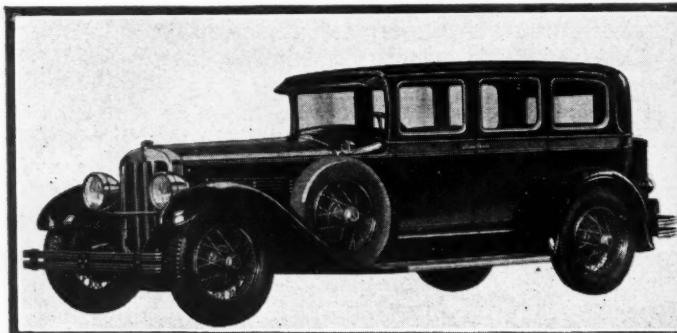


AUBURN for 1928 offers a large and small eight and a six. These are designated by the horsepower as the models 115, 88 and 76 respectively which is higher than formerly developed

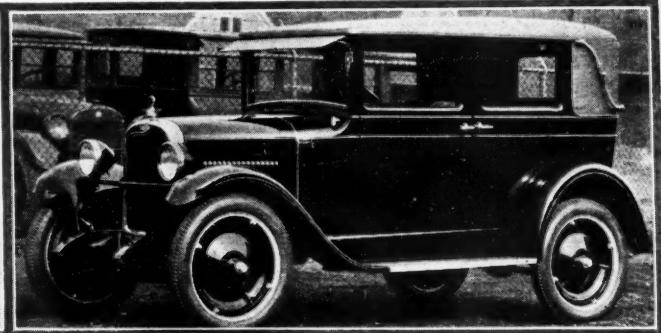


CADILLAC now includes 11 bodies by Fleetwood and 14 Fisher bodies on the Model 341 chassis, which is named by its piston displacement. The wheelbase is 140 in.

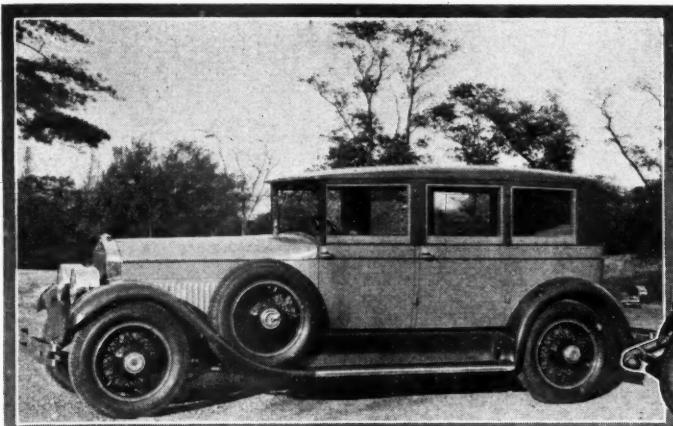
BUICK performance has been improved and body lines made lower. Sixteen body models are offered on the three chassis, with wheelbases of 114½ in., 120 in. and 128 in. The engine of the 114½ in. chassis has a displacement of 207 cu. in., while the other models have 274 cu. in.



CHANDLER for 1928 is offering the Big Six, Special Six and Royal Straight Eight. In the Royal Eight line, three new body models have been brought out. These are the five and seven-passenger sedans and cabriolet

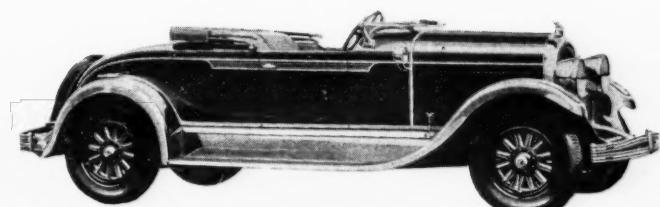


CHEVROLET has increased its wheelbase from 103 in. to 107 in. and the engine power has been increased from 26 to 35 b. hp. Bodies are larger, and rebound checks and four-wheel brakes have been added

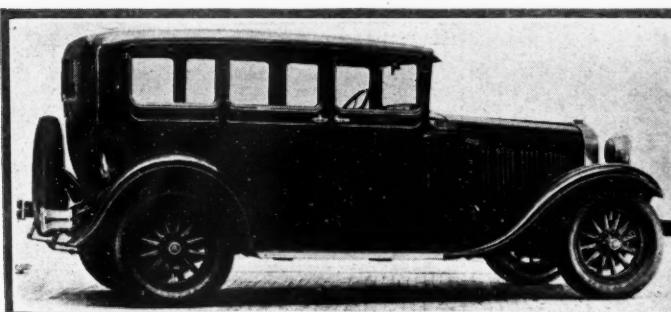


CUNNINGHAM (above) continues with the Model V7. A four-passenger sport touring and a seven-passenger touring constitute the open cars, while a four-passenger coupe and a six-passenger limousine complete the closed-car offering

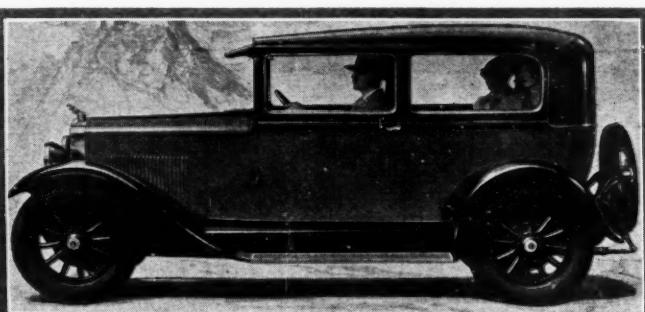
ELCAR'S "Travelair" with "shockless" chassis is offered in 24 body models on five chassis, for 1928. The color treatment of these cars is distinctive and unique



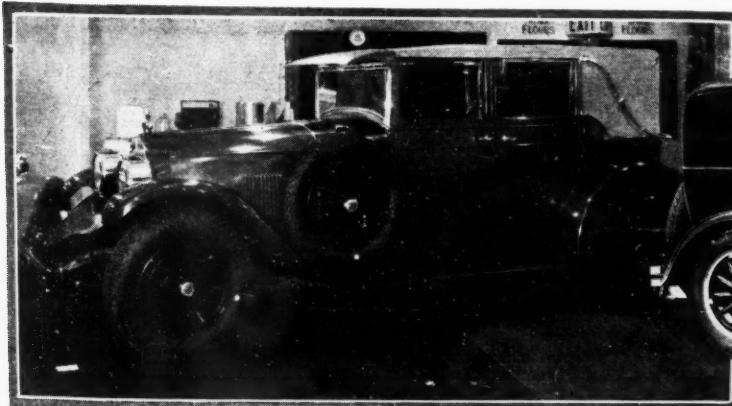
CHRYSLER, in addition to many custom bodies on the Imperial 80 Model, has the 72 in a town sedan and a sport roadster with rumble seat. Four-wheel brakes have been added on the 52



DODGE Victory Six is the newest in this line. The top road speed is conservatively reported at 65 miles an hour. In the Model 124 Dodge cars the use of Steel-draulic four-wheel brakes is the latest development

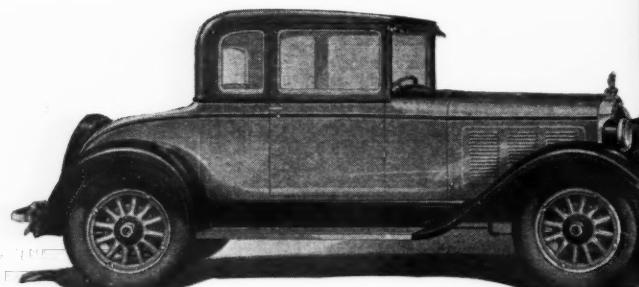


ERSKINE has improved acceleration, has higher road speeds and more commodious bodies. The bore of the engine has been increased from $2\frac{3}{8}$ in. to $2\frac{3}{4}$

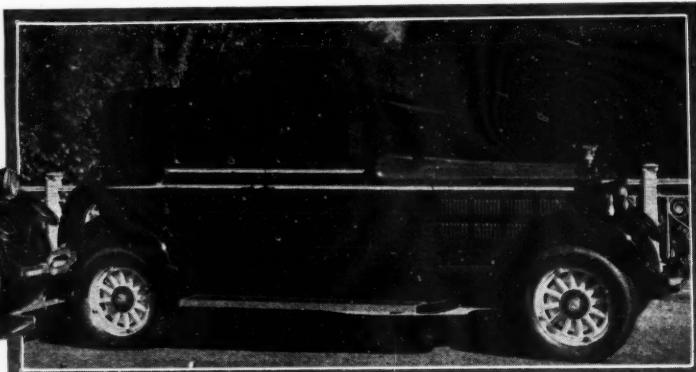


DUPONT line is designated as the Model E and at the present time includes a four-passenger roadster, five-passenger touring car, four-passenger coupe and two five-passenger sedans

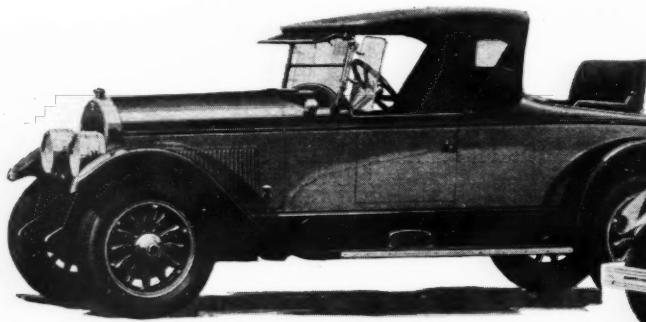
ESSEX cars now have Bendix three-shoe internal four-wheel brakes. In addition the new models have been approved in appearance. Flatter roof and higher belt line give the impression of greater length, while vertical radiator shutters instead of the horizontal ones, give the radiator a high and narrow effect



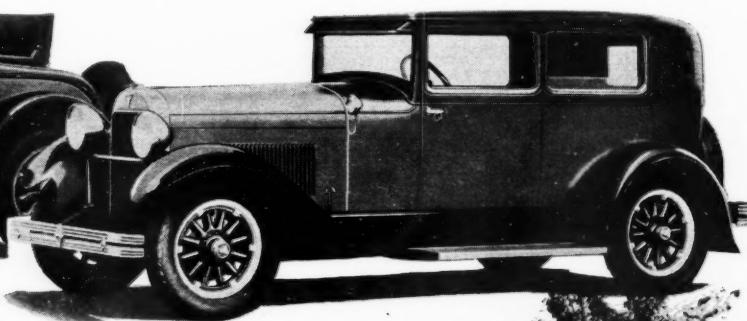
FALCON-KNIGHT bodies are larger, stronger and better looking. Shock absorbers are now standard equipment both front and rear



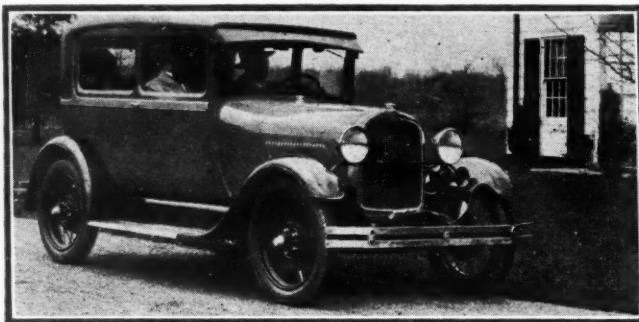
GARDNER now offers what is the lowest-priced eight on the market. Two new models have also been brought out recently



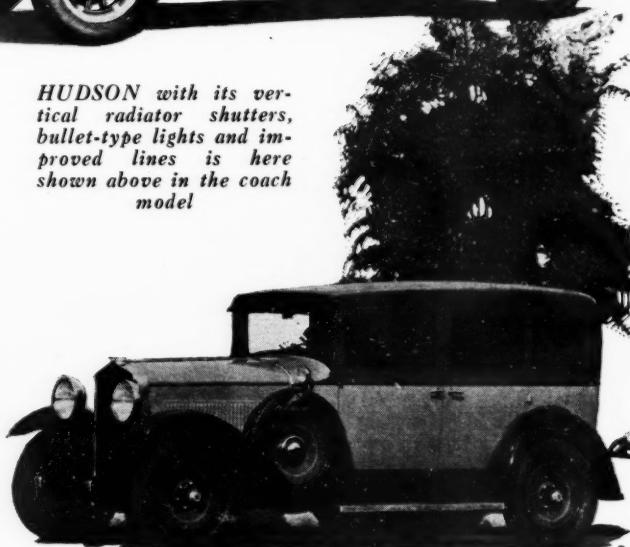
FLINT cars are available on wheelbases of 110 in., 115 in., and 120 or 130 in., and in 12 body models



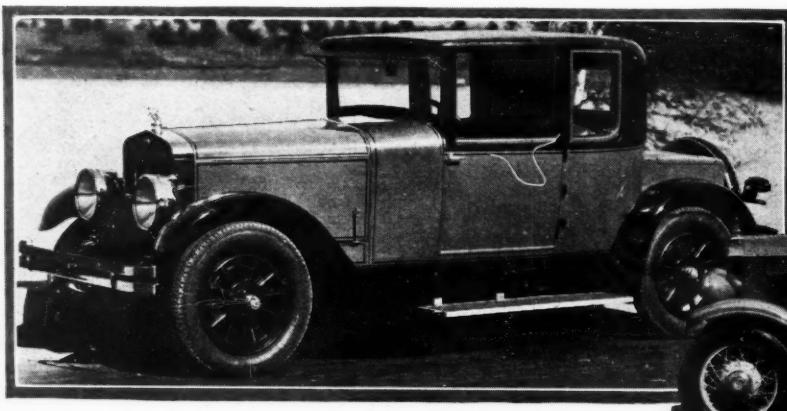
HUDSON with its vertical radiator shutters, bullet-type lights and improved lines is here shown above in the coach model



FRANKLIN Airman series is now offered with two entirely new bodies, in addition to four special custom and three de luxe models. The coupe is shown below

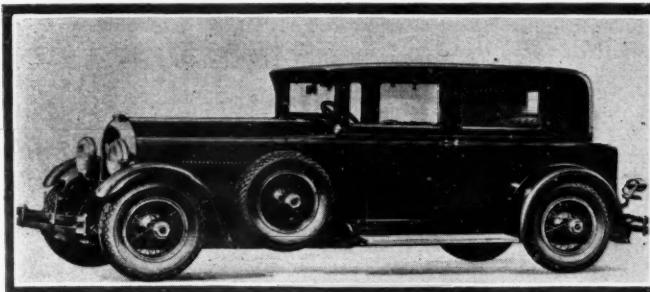


HUPMOBILE'S latest presentation is an entirely new straight eight. In appearance it is similar to the new six —only larger

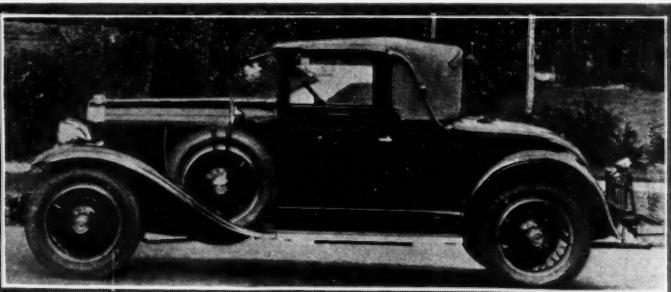


JORDAN continues the line of Models R, J-1 and JE. The Model R is generally referred to as the "Little Custom"

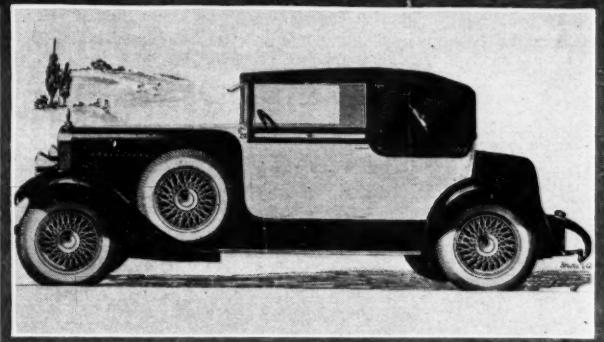




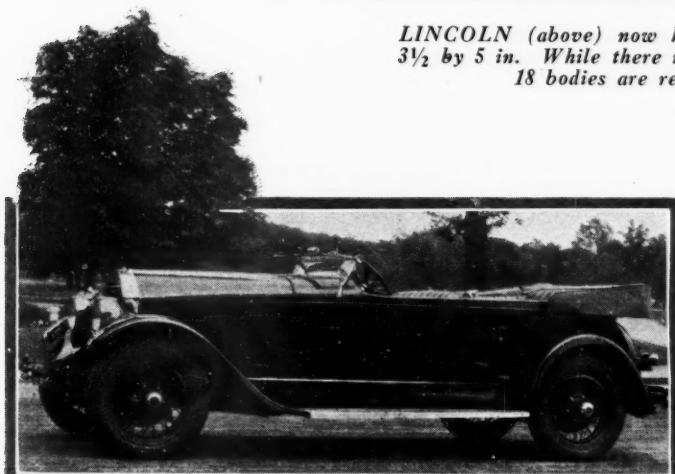
KISSEL, in the White Eagle models, is using an engine that develops a maximum of 115 b. hp. Dual manifolding is one of the features of this powerplant. Bodies are distinctively Kissel



LA SALLE for 1928 is continued on wheelbases of 125 in. and 134 in. On these two chassis lengths 15 body styles are regularly offered in addition to special custom creations

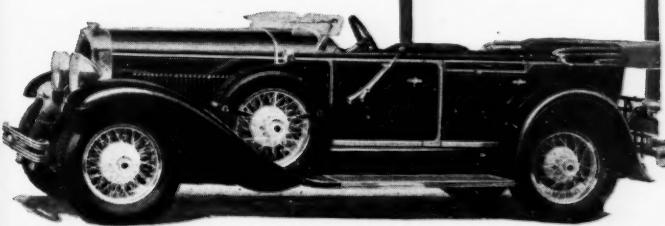


LINCOLN (above) now has a bore and stroke of 3½ by 5 in. While there is only one chassis model, 18 bodies are regularly offered



LOCOMOBILE (above) continues for 1928 with its Models 8-70, 8-80, 48 and 90

MARMON (below) has now entered the eight-cylinder field with a medium-priced car, known as the Model 68 and offered on a 114-in. wheelbase

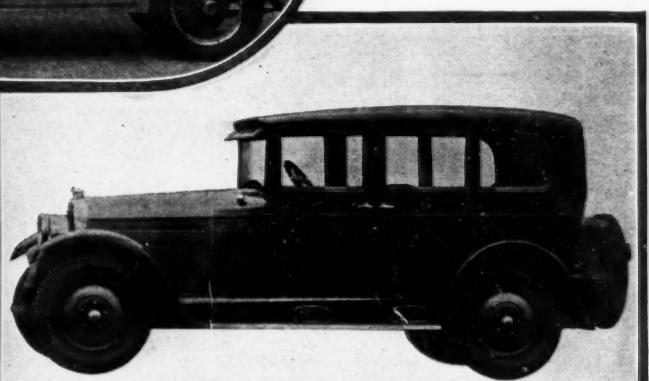
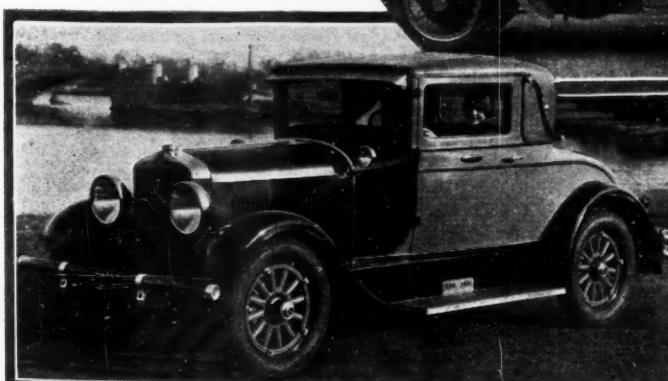


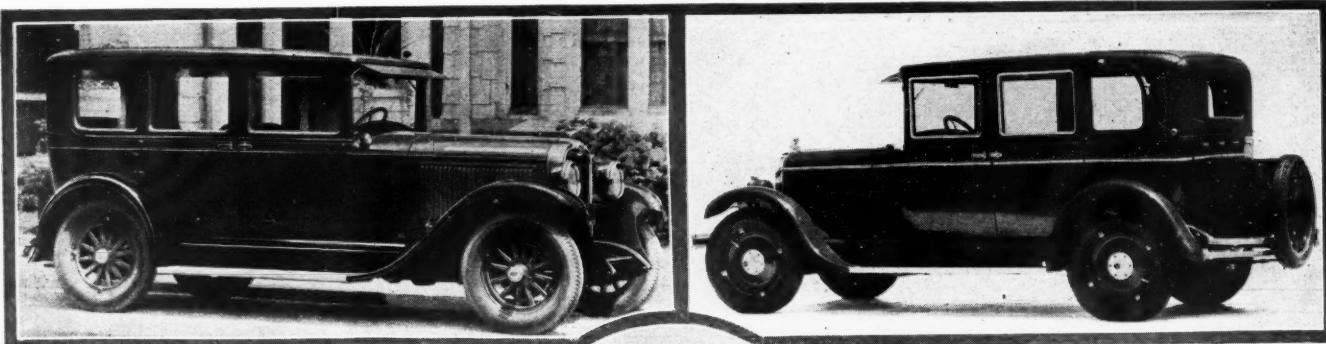
McFARLAN (in oval) continues two distinct lines. These are a straight eight and a large six



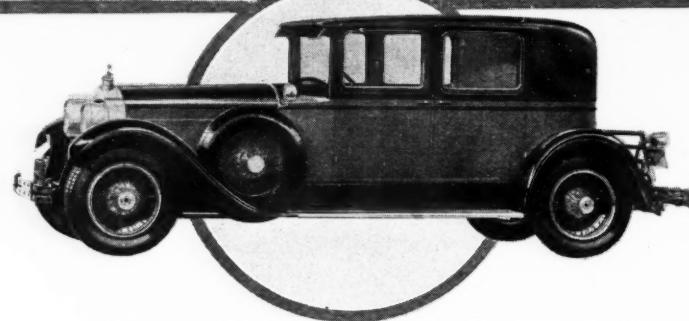
MOON developments include the Model 8-80, an eight powered with the new Continental 15-S engine. Appearance of the new car is similar to the latest sixes, known as Model 6-72

NASH incorporates practically no mechanical changes at this time. Refinements and body improvements were previously described in MOTOR AGE. Twenty-five bodies are offered



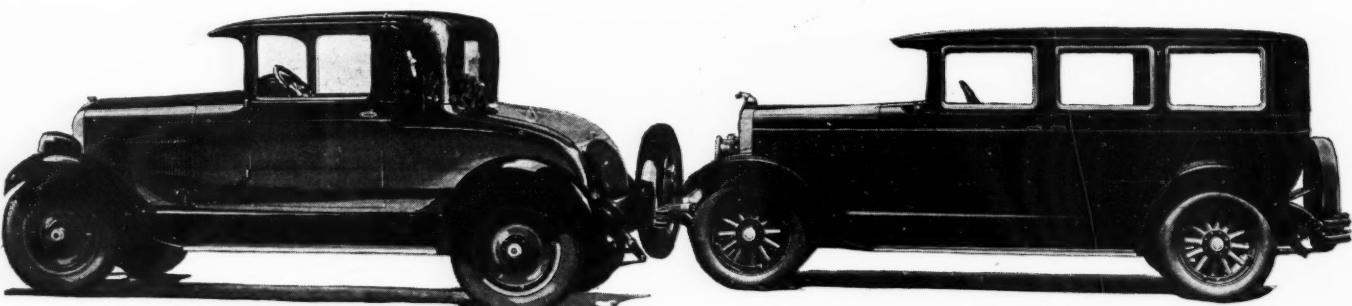


OAKLAND—the "All-American Six"—now has a larger engine and longer wheelbase. There have also been many refinements made in the powerplant and chassis



OLDSMOBILE has been completely rebuilt. An entirely new chassis and engine are seen in this model, as well as bodies that are totally different from previous models

PACKARD changes and refinements announced in the Sept. 15 MOTOR AGE continue. Three chassis lengths are available—from 126 in. to 143 in., the latter being the large straight eight

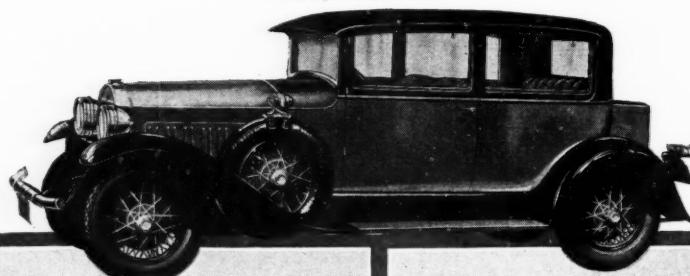


PAIGE—to be known as the Graham-Paige—is now seen with a number of interesting refinements in chassis and bodies

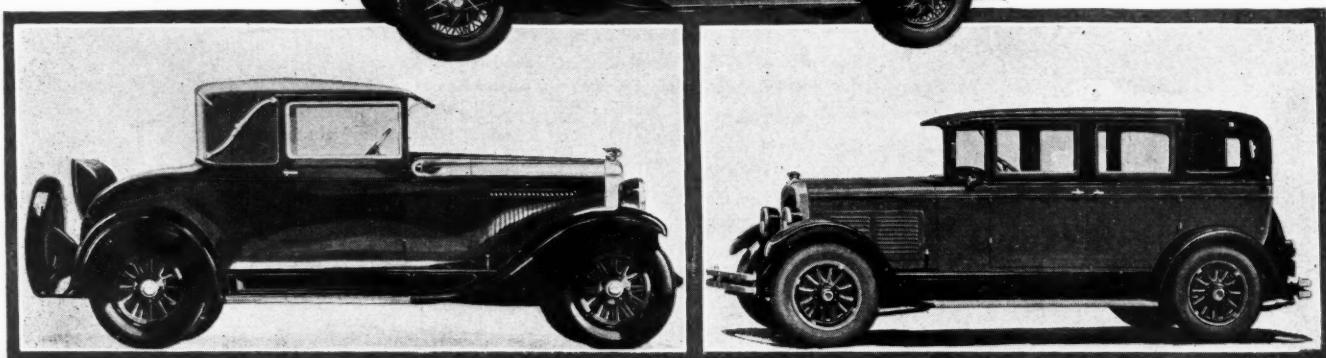
PIERCE-ARROW (below) for the first time is now available with headlights removed from the fenders. The many other improvements have been previously described

PEERLESS developments have been confined primarily to body improvements, both as to appearance and comfort

PONTIAC changes include larger and more comfortable bodies, new style of radiator, and the adoption of four-wheel brakes. The wheelbase remains unchanged but new lines give the impression of greater length

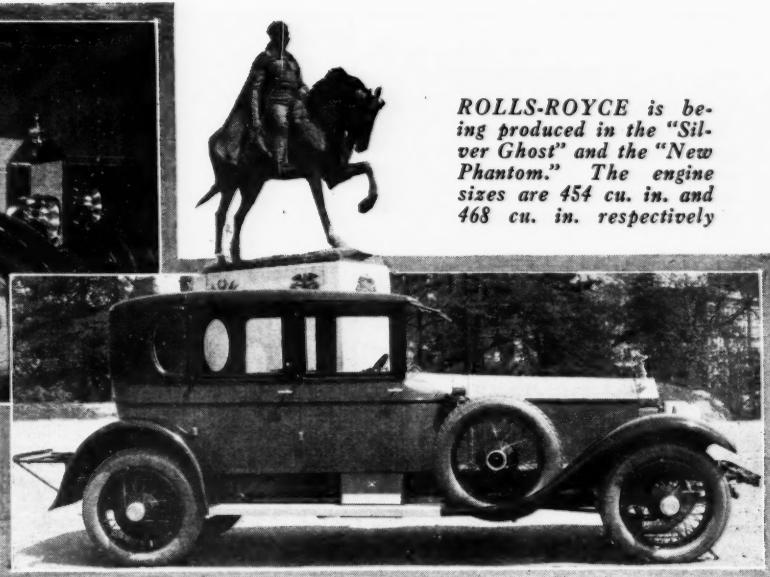


REO—both Wolverine and the Flying Cloud—remain practically unchanged for 1928, except that the bore of the Wolverine has been increased slightly, thus resulting in improved performance

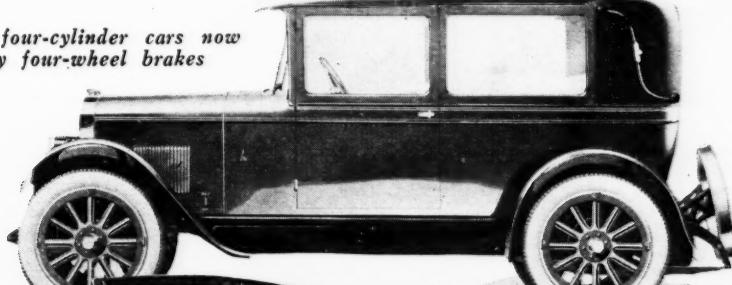




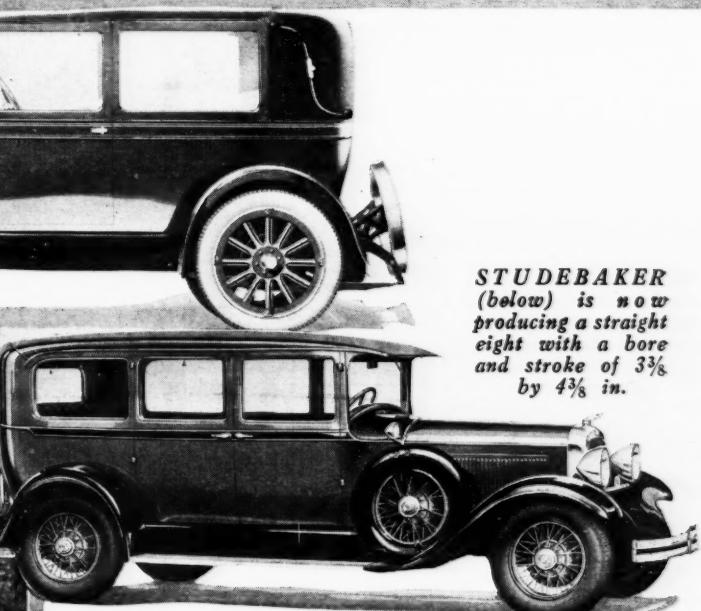
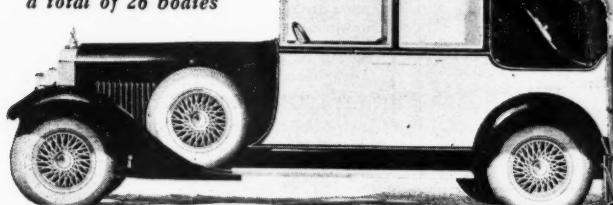
ROAMER cars are represented at the present time by a total of three chassis models



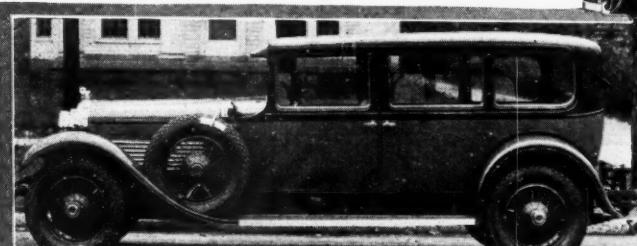
STAR four-cylinder cars now carry four-wheel brakes



STEARNS-KNIGHT (below) cars are available on four chassis with a total of 26 bodies



STUDEBAKER (below) is now producing a straight eight with a bore and stroke of $3\frac{3}{8}$ by $4\frac{1}{8}$ in.

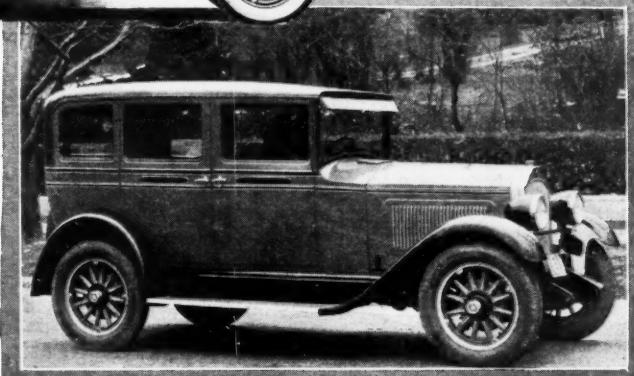
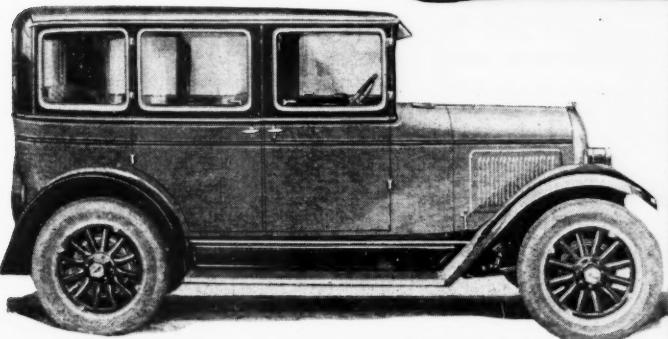


STUTZ (left), in addition to a number of refinements, is showing an unusual number of special color combinations



VELINE (left) models now include a straight-eight of 96 hp.

WHIPPET (below) incorporates changes in bodies while Willys-Knight Standard Six is shown in lower right



1928 Specifications and Statistical Data

For the man who buys, and the man who sells—the man who renders service, and the man who buys service—these special MOTOR AGE tables will prove invaluable.

Passenger Car Serial Number Guide

(The prices shown represent Standard Touring Models)

ACE—The American Motor Truck Co., Newark, Ohio.

Year	Model	Cyls.	Price	Serial Numbers
1920	L	4	\$1095	18000-21000
1921	G & H	6	2260	
	L	5	2975	

Discontinued

AJAX—Nash Motors, Kenosha, Wis.

Year	Model	Cyls.	Price	Serial Numbers
1925	51	6	\$865	1000-
				Number or plate on right hand frame 6 in. ahead of front spring rear bracket

Name changed to Nash Light 6

ALLEN—Allen Motor Co., Columbus, Ohio.

Year	Model	Cyls.	Price	Serial Numbers
1920	43	4	\$1495	50001 and up
				Number stamped on frame of right front spring hanger

1921	Series 43	4	\$1385
			Discontinued

AMBASSADOR—Yellow Cab Mfg. Co., Chicago, Ill.

Year	Model	Cyls.	Price	Serial Numbers
1922	R	6	\$4500	4150-4164
1923	R	6	4500	4165 up
1924	D1	6	1695	70001 to 70050
1925	D1	6	1695	70051 and up

Number of left front horn. Production suspended Discontinued

AMERICAN—American Motors Co., Plainfield, N. J.

Year	Model	Cyls.	Price	Serial Numbers
1921	C-6	6	\$2275	3000-4000
1922	C	6	1850	
1923	D-66	6	1785	5,000 and up
1924	D-66	6	1695	

Number on plate under seat Discontinued

ANDERSON—Anderson Motor Co., Rock Hill, S. C.

Year	Model	Cyls.	Price	Serial Numbers
1920	30A-30G	6	\$1850	331-37272
1921	Series 40	6	1795	423-38129
1922	Series 40	6	1650	4155-42157
1923	41	6	1195	

Numbers are arranged by body styles and do not run consecutively

Number on plate under hood, right side dash Discontinued

APPERSON—Apperson Brothers Auto Co., Kokomo, Indiana.

Year	Model	Cyls.	Price	Serial Numbers
1920	8-20	8	\$2050	
	Anvay.	8	4000	

Number on right front engine leg

8-20 8 \$3500 } 19000-21702

Anvay. 8 4250 }

1921 8-21-S 8 3500

1922 8-21-S 8 2620 25200-30000

1923 8-22-S 8 2800 25200-30000

1924 6 6 1535

1924 6 6 1695 T-600 and up

1924 8 8 2485

Number on right front side of crankcase

1925 8-25 V8 St 8 58000-59000

1925 8-25 St 8 \$1995 85000 and up

1925 6-25 6 1650 65000 and up

Number plate on L. H. side of front seat. Discontinued

AUBURN—Auburn Automobile Co., Auburn, Indiana.

Year	Model	Cyls.	Price	Serial Numbers
1921	6-39	6	\$1695	29725-33359
				33360-34116
1922	6-51	6	1575	33360-36999
1923	6-43	6	1095	50000-52000
1923	6-23	6	1595	37000-37619
1924	6-43	6	1395	52001-55000
1924	8-63	8	1895	37620-38575
1925	8-63	8	1895	38570 and up
1925	6-66	6	1395	25555 and up
1925	8-88	8	1995	25392 and up
1926	8-88	8	1695	2539202 and up
1926	6-66	6	1395	2555501 and up
1926	4-44	4	1145	2670001 and up

Number on footboard in driver's compartment

1927 6-66 8 2771501 and up

1927 8-77 8 2761001 and up

1927 8-88 8 2745601 and up

Number stamped on serial name plate on dash

Number near light bracket, right hand side rail

Discontinued

BARLEY—Barley Motor Car Co., Kalamazoo, Mich. (See Roamer Motor Car Co.)

Year	Model	Cyls.	Price	Serial Numbers
1922	6	6	\$1395	35000-35211
1923	6-50	6	1395	
1924	6-50	6	1395	

Superseded by Roamer 6-50

Number near light bracket, right hand side rail

Discontinued

BEGGS—Beggs Motor Car Co., Kansas City Mo.

Year	Model	Cyls.	Price	Serial Numbers
1920	20-T	6	\$1630	210-21290
1921	20-T	6	1775	21300-21540
1922	20-T	6	1175	21550-21820
1923	20-T	6	1495	21830 and up

Number on outside of right front frame horn and on plate on dash under hood Discontinued

BIDDLE—Biddle Motor Car Co., New York, N. Y.

Year	Model	Cyls.	Price	Serial Numbers
1921	B-1	4	\$3950	2000 up
1921	B-1	4	3475	3000 up
1922	B-1 & B-5	4	2950	3500 up
1923	B-1 & B-5	4	2950	4000 and up

Number on right side of dash Discontinued

BIRCH—Birch Motor Cars, Chicago, Ill.

Year	Model	Cyls.	Price	Serial Numbers
1920	30-B	4	...	B-126 up
	40	4	...	42000 up
	45-B	6	...	N-151 up

Number on name plate on dash

1921 Super 4 4 \$1345

1921 Light 4 4 1195

1921 Light 6 6 1595

1922 Production limited Discontinued

BOUR-DAVIS—Louisiana Motor Car Co., Shreveport, La.

Year	Model	Cyls.	Price	Serial Numbers
1918-19	20	6	\$1595	
1920	20	6	1700	1 up
		6	19-1-19	
		6	1825	1-200
		21	2585	2000-2096
1921	21-S	6	2385	

Number on front seat base opposite left hand door; engine number on left side crankcase

Number on front seat near floor board Discontinued

BREWSTER—Brewster & Co., Long Island City, N. Y.

Year	Model	Cyls.	Price	Serial Numbers
1920	41	4	\$9000	91242-91241
1921	91	4	7000	5000 41242-41341
1922	91	4	5000	5700 02342 and up
1924	02	4	7500	02342 and up

Number on plate screwed on the motor side of dash
Serial numbers do not run in rotation
Discontinued

BRISCOE—Briscoe Motor Corp., Jackson, Mich.

Year	Model	Cyls.	Price	Serial Numbers
1920	4-34	4	\$1185	1 M-550-M-558
1921	4-34	4	1085	57500 and up
1922	4-43	4	58588-58606	

Number on dash plate
Name changed to Earl

Discontinued

BUICK—Buick Motor Co., Flint, Mich.

Year	Model	Cyls.	Price	Serial Numbers
1920*	K-44-50	6	\$1495	547524-687794
1921	44-7	6	1525	687795 and up

CASE—J. I. Case Thresh. Mach. Co., Racine, Wis.

Year	Model	Cyls.	Price	Serial Numbers
1920	V	6	\$2200	34860 to 37287
1921	V	6	2650	37288-38744
1922	W	6	2250	43751-43859
1923	X	6	1790	38748-39440
1923	X	6	1790	39441 to 40807
1923	W	6	1990	43860 to 44284
1924	W	6	1990	44243-44260
1924	Y	6	2475	44307-44443
1924	X	6	1895	40808-41387
1925	J.I.C.	6	1885	75011 and up
1925	X	6	1595	41388 and up
1925	Y	6	2225	44444 and up
1926	J.I.C.	6	1885	75011 and up
1926	Y	6	2225	44444 and up
Number on dash and in front cross bar of frame at right side, rear side				

CHALMERS—Maxwell Motor Co., Inc., Detroit, Mich. (See Chrysler)

Year	Model	Cyls.	Price	Serial Numbers
1920	Roadster	6	\$1795	{ 94001 to 110000 111101 to 112000
	5-Passenger	6	1795	115001 to 200000
	7-Passenger	6	1945	240001 and up
	Sport	6	1995	115001 to 200000
	Coupe	6	2595	115001 to 200000
	Sedan	6	2745	{ 111101 to 112000 114001 to 114101
1921	6-30 & 35-B	6	1545	200000 up
Number on brass plate on left horn of frame just in front of radiator				
1922	35-B	6	\$3395	{ 225001-225203 125509-219332
	35-C	6	1495	{ 130001-131308 131502-131505
1923	Y	6	1185	Y-100 to Y-10399
1924	Superseded by Chrysler Discontinued			

CHAMPION (formerly Direct Drive)—Champion Motors Corp., Philadelphia, Pa.				
Year	Model	Cyls.	Price	Serial Numbers
1920	Touring	4	\$1350	100 to 299
1921	Tourist	4	1250	C-200-C-299
	Special	4	1595	CS200-CS299
1922	Production Limited			
1923	Touring	4	\$895	C-400 and up
Number on inside dash on instrument board Discontinued				

CHANDLER — Chandler - Cleveland Motors Corp., Cleveland, Ohio				
Year	Model	Cyls.	Price	Serial Numbers
1921	6	6	\$1785	106001 to 115000
1922	SS-29	6	1595	115001-126000
1923	32-32A	6	1485	126001-140000
1924	33	6	1585	140001-147000
1925	33A	6	1595	147001-159624
1926	35	6	1490	159624-174000
1926-27*Big 6	6	1545	174001 and up	
1926-27*Spec. 6	6	1145	77526 and up	
1926-27*Std. 6	6	945	15998 and up	
Number stamped on right hand frame rail behind front fender iron * Beginning August, 1926.				
1927	Std. 6	6	\$945	15998
	Spec. 6	6	1145	77526
1927	Big 6	6	1695	174001
1927	Royal 8	8	2195	E100001
Number on frame rail R				

CHEVROLET—Chevrolet Motor Co., Detroit, Mich.				
Year	Model	Cyls.	Price	Serial Numbers
1920	FB-50	4	\$1135	
	490	4	735	
	T	4	1460	
1921	490	4	645	
	FB	4	1185	
1922	490	4	525	59934-10981
	FB	4	975	2253-39556
Number on plate under instrument board on dash.				
1923	Superior	4	\$525	*A-*B
1924	Superior	4	510	*B-*F
1925	K	4	525	*F-*K
1926	Superior	4	525	*K-*V
1927	V & X	4	510	*V-*X
1927	Capitol	4	525	*AA
1927	LM	4	490	*LM
Number on plate on left of right side of front seat frame.				
As Chevrolet cars are numbered by manufacturing zones it is not possible to reproduce the numbers in such a way as to be of use to the dealer.				
*Where further information is required on a specific car write to the plant where the car was manufactured, addressing your letter to the Chevrolet Motor Co. The numerical prefix in the serial number denotes the plant where the cars are manufactured. These plants are located as follows:				
Up to and including 1923	Since 1923			
1. Flint, Michigan	1. Flint, Michigan			
2. Tarrytown, N. Y.	2. Tarrytown, N. Y.			
3. St. Louis, Missouri	3. St. Louis, Missouri			
4. Oakland, California	6. Oakland, California			
5. Fort Worth, Texas	9. Cincinnati, Ohio			
6. Oshawa, Ontario	12. Buffalo, New York			
	21. Janesville, Wis.			

Up to and including 1923 Since 1923

1. Flint, Michigan 1. Flint, Michigan

2. Tarrytown, N. Y. 2. Tarrytown, N. Y.

3. St. Louis, Missouri 3. St. Louis, Missouri

4. Oakland, California 6. Oakland, California

5. Fort Worth, Texas 9. Cincinnati, Ohio

6. Oshawa, Ontario 12. Buffalo, New York

21. Janesville, Wis.

CHRYSLER—Chrysler Corporation, Detroit, Mich.

Year	Model	Cyls.	Price	Serial Numbers
1924	B	6	\$1395	1001 to 32812
1925	B	6	1395	32813 and up
	G	6	1395	WE580P and up
1926	G-70	6	1395	WE585E and up
1926	E-80	6	2545	EW000P and up
1926	H-60	6	1075	YR500D and up
1926	I-50	4	750	WF000P and up
Number on plate on front of dash, also on left frame side member at rear spring horn.				
1927	50	4	\$750	FH556D and up
1927	60	6	1075	YD243W and up
1927	70	6	1395	PH679C and up
1927	80	6	2495	EW655L and up
Number stamped Fedco System on instrument board				

CLEVELAND — Chandler - Cleveland Motors Corp., Cleveland, Ohio.

Year	Model	Cyls.	Price	Serial Numbers
1920	40 Touring	6	\$1385	4000 to 21189
1921	40	6	1295	21190-24999
1922	41	6	1195	25000-34499
Number plate on right hand frame members about 12 inches in front of radiator; engine number front of crankcase under oil filler.				
1923	42	6	995	35500-49999
1924	42	6	1045	50000-59999
1925	43	6	1095	60000-70300
1925	31	6	895	C-2000 to C-3900
1926	43	6	1145	70300-77526
1926	31	6	945	3900-15998
Number stamped on the outside of right hand front frame horn, and to the rear of the front spring bolt.				
Name changed to Chandler.				

CLIMBER—Climber Motor Corp., Little Rock, Ark.

Year	Model	Cyls.	Price	Serial Numbers
1920	T	4	\$1465	213 to 320
	S	6	2395	1001 to 1112
Number on left front frame				
1921	4	4	1385	T100-T390
	6	2250	SI000-SI400	
Number on left front frame horn and also on motor				
Discontinued				

COLE—Cole Motor Car Co., Indianapolis, Ind.

Year	Model	Cyls.	Price	Serial Numbers
1920	870, 71, 72, 78, 79, 83, 85, 890	8	\$3250	59000 to 65000
1921	890	8	3250	
1922	890	8	2485	66375-68644
1924	Master	8	2325	
Number on right front spring hanger and under right front seat cushion				
Discontinued				

COLUMBIA—Columbia Motors Co., Detroit, Mich.

Year	Model	Cyls.	Price	Serial Numbers
1920	E	6	\$1845	101 up
	H	6	2350	100 up
	C-S	6	2445	1951-1968
1920	C	6	1695	4000 and up
	D	6	1845	1400 and up
	E-CS	6	2850	2000 and up
	H	6	....	100 and up
1921	E-CS-H	6	1795	10000-20000
1922	DC & CS	6	1475	21400 up
	8-R	6	985	1 up
1923	8-Y	6	2175	21400 and up
1923	6-Y	6	1475	3331 and up
1924	42	6	\$1275	to 12000
1925	42	6	1275	12001-14000
Number on front seat bottom				
Production Limited				

COMET—Comet Automobile Co., Decatur, Ill.

Year	Model	Cyls.	Price	Serial Numbers
1920	C-53	6	\$2150	701 and up
1921	C-53	6	2450	
Number under hood on dash, left side				
Discontinued				

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DORRIS—Dorris Motor Car Co., St. Louis, Mo.					
Year	Model	Cyls.	Price	Serial Numbers	
1920	6-80	6	\$4350	{ 8675 to 9000 9017 to 9088	
1921	6-80	6	4785	9089 to 9229	
1922	6-80	6	3590	9230 to 9345	
1923	6-80	6	3950	9346 to 9542	
1924	6-80	6	4150	9543 to 9594	
				Serial number on top of crankcase	
				Discontinued	

DORT—Dort Motor Car Co., Flint, Mich.					
Year	Model	Cyls.	Price	Serial Numbers	
1921	17-12	4	\$ 985	80459 to 87850	
1922	19-14	4	885	87856-95699	
1923	18	4	885	95309 and up	
1923	20	6	1025	102860 and up	
				Number on plate on left side dash	
				Discontinued	

DUESENBERG—Duesenberg Motors Co., Indianapolis, Ind.					
Year	Model	Cyls.	Price	Serial Numbers	
1923	8	8	\$5500	598 to 950	
1924	St.8	8	6250	951 to 1000	
1925	St.8	8	6650	1001 and up	
				Number on right hand side front dash	

DUPONT—Dupont Motors, Inc., Wilmington, Del.					
Year	Model	Cyls.	Price	Serial Numbers	
1921	A	4	\$3400		
1922	A	4	3200	1 to 480	
				Number on right side of upper crankcase	
1923	A	4	\$2090	1 to 480	
1923	C	6	2090	1 to 480	
1924	C	6	2090	1 to 480	
1925	C	6	2090	1 to 480	
1925	D	6	2600	481 and up	
1926	E	6	2800	510 and up	
				Number on dash under cowl	
				Serial numbers do not run consecutively	
1927	E	6	\$2800	510 and up	
				Number stamped on R. H. side engine block.	
				Serial under cowl on dash	

DURANT—Durant Motors, Inc., New York, N. Y.					
Year	Model	Cyls.	Price	Serial Numbers	
1923	A-22	4	\$890	to 8462	
1924	A-22	4	890	8463-101572	
1925	A-22	4	810	101573-102324	
				Number on right side of dash under hood	
				As Durant cars are numbered by manufacturing zones, it is best to obtain serial numbers from Durant Motors, Inc., 1819 Broadway, New York, N. Y.	
				Discontinued	

EARL—Earl Motors, Inc., Jackson, Mich.					
Year	Model	Cyls.	Price	Serial Numbers	
1921	40	4	\$1095	70000 to 70433	
1922	40	4	1095	70434-74363	
1923	40	4	1095	74364 to 80401	
				Number on front of dash	
				Discontinued	

ELCAR—Elcar Motor Co., Elkhart, Ind.					
Year	Model	Cyls.	Price	Serial Numbers	
1921	K-4	6	\$1300	20000-21000	
	7-R	6	1700	21000-32000	
1922	K-4	4	1095	20000-25000	
	7-R	6	1395	30000-33000	
1923	4-40	4	995	25000 and up	
	6-60	6	1395	33001 and up	
				Number on right rear spring horn	
1924	4-41	4	\$995		
1924	6-51	6	1220		
1924	6-61	6	1585		
1924	8-80	8	2165	33001-38199	
1925	4-55	4	1095		
1925	6-25	6	1295		
1925	8-80	8	2265		
1926	8-81	8	2265	38200 and up	
1926	6-65	6	1295	38200 and up	
1926	4-55	4	1095	38200 and up	
				Number on plate on front of dash and on right rear frame hanger	

ESSEX—Hudson Motor Car Co., Detroit, Mich.					
Year	Model	Cyls.	Price	Serial Numbers	
1921	4	4	\$1445	500000-501754	
1922	Coach	4	501755-516833		
1922	Phaeton	4	1095	608597-622987	
1923	Coach	4	1045	516884-529382	
1923	Phaeton	6	622988-628660		
1923	Coach	6	529383-542897		
1923	Phaeton	6	975	628661-630411	
1924	All	6	900	103642-177750	
1925	All	6	765	177751-337949	
1926	All	6	765	337950-442675	
1926-27* Coach	3	795	442676 and up		
Serial number on dash				* Beginning July, 1926.	
1927	Coach	6	\$735	500001 and up	

FALCON-KNIGHT—Falcon Motors Corp., Detroit, Mich.

Year	Model	Cyls.	Price	Serial Numbers
1927	10	6	\$975	1000 and up

FLINT—Durant Motors, Inc., New York, N. Y.

Year	Model	Cyls.	Price	Serial Numbers
1924*	E-55	6	\$1595	100-8324
1924*	H-40	6	980	500-2404
1925*	E-55	6	1595	8325-16587
1925*	H-40	6	1285	2405-7699
1925*	B-40	6	1285	7700-12476
1926*	E-55	6	1595	16588-18930
1926*	B-40	6	1285	12477-15209
1926*	60	6	1285	15210-18775
1926*	Z-18	6	1085†	100-1911
1927*	80	6	1450	20103 and up
1927*	60	6	1260	18776 and up
1927*	Z-18	6	960†	1912 and up

* Indicates Sales Year. Serial Nos. run from August 1st of preceding year to July 31st of sales year

Number on plate on dash under hood

FORD—Ford Motor Co., Detroit, Mich.

Year	Model	Cyls.	Price	Serial Numbers
1920*	T	4	\$525	3659972-4698419
1921	T	4	...	4698420-5638071
1922	T	4	348	5638072-6953071
1923	T	4	298	6953073-9008371
1924	T	4	290	9008372-1099900
1925	T	4	290	1099901-1299905
1926	T	4	380	1299005 and up

*First serial number effective August 1st

Number stamped on left side cylinder block just above water inlet connection. Car and engine number the same from May 1, 1915.

FRANKLIN—H. H. Franklin Mfg. Co., Syracuse, N. Y.

Year	Model	Cyls.	Price	Serial Numbers
1920	S-9B	6	\$2850	68900 and up
1921	9-B	6	2650	100000 and up
1922	10-B	6	1950	133001 and up
1923	10-B	6	...	134013 and up
1924	10C	6	\$1950	144589-151500

Numbers are allotted by body styles and do not run consecutively

Number on plate on dash under hood

1925 11 6 2650 151501-158872

1926 11 6 2635 158873 and up

Number on right side of crankcase above generator

GARDNER—Gardner Motor Co., Inc., St. Louis, Mo.

Year	Model	Cyls.	Price	Serial Numbers
1921	G	4	\$995	6431-9673
1922	S-5A	4	895	9674-A-18000-A
1923	S-5B	4	995	18001B-26045B
1924	S-5C	4	995	26045C-32500
1925	6-A	6	1395	32500-34525
1925	8-A	8	1795	32500-34525
1926	6-B	6	1395	34526-41765
1926	8-B	8	1795	34526-41765
1927*	6-B	6	1395	41766 and up
1927*	8-B	8	1795	417

JEWETT—Palge-Detroit Motor Car Co., Detroit, Mich.					
Year	Model	Cyls.	Price	Serial Numbers	
1922	6	6	\$1065	10000-27000	
1923	6	6	1065	27001-60000	
1924	6	6	1135	60001-102595	
				Number on left side crankcase	
1925	6	6	\$1320	102596-313922	
1926	109	6	1195	315501 and up	
				Number under front seat	
				Name changed to Paige.	

JORDAN—Jordan Motor Car Co., Cleveland, Ohio					
Year	Model	Cyls.	Price	Serial Numbers	
1920	F	6	\$2975	7251 to 8300	
1920	M	6	2450	10701 to 13500	
1921	F	6	...	8301 to 8785	
1921	MX	6	2095	13501 to 15491	
1922	F	6	...	8786 to 9243	
1922	MX	6	1795	20001 to 25000	
1923	H	6	1995	35001 to 38000	
1924	MX	6	1675	31701 to 33320	
1924	H	6	1995	38001 to 33341	
1924	K	6	1775	50001 to 51400	
1924	L	6	2095	40001 to 41800	
1925	K	6	2385	51401 and up	
1925	L	6	2095	41801 and up	
1925	A-8	8	2275	60001-64200	
1926	A & AA	8	...	64201-66825	
1926	J	8	...	70001-79920	
				Number left front side of dash on plate	
1927	J	8	\$1695	DY-992-S and up	
1927	AA	8	2495	DL-682-L and up	
1927	R	6	1595	DE-000-S and up	
				Number stamped on L. H. side of instrument board	

KELSEY—Kelsey Motor Co., Newark, N. J.					
Year	Model	Cyls.	Price	Serial Numbers	
1921	GWOV	6	\$1800	102-110	
1922	G & B	4	985	1000-1016	
1923	G	4	4000	4081	
				Number on left hand side of instrument board	
				Discontinued	

KING—King Motor Car Co., Detroit, Mich.					
Year	Model	Cyls.	Price	Serial Numbers	
1920	Touring	8	1000	1000 to 6000	
1921	J	8	\$2725	JT1001 to KF2001	
1922	K	8	1795	KT-3501 up	
1923	L	8	1595	....
				Number below cushion on heel board	
				Discontinued	

KISSEL—Kissel Motor Car Co., Hartford, Wis.					
Year	Model	Cyls.	Price	Serial Numbers	
1920	Cus. Bld.	6	\$3475		
1921	45	6	3475		
1922	45	6	1885		
1923	55	6	1585	100 and up	
1924	55	6	1685		
1925	55	6	1685		
1925	75	8	1985		
1926	55	6	1585	55-10001 and up	
1926	75	8	1985	75-3501 and up	
				Number stamped on front end right frame member adjacent to right head lamp. Engine number on right front motor arm.	
1927	55	8	\$1785	55-13038 and up	
1927	65	8	1985	65-1001 and up	
1927	75	8	2285	75-5646 and up	
				Number on right front frame member	

KLINE—Kline Car Corp., Richmond, Va.					
Year	Model	Cyls.	Price	Serial Numbers	
1919-20	6-55-J	6	\$1965	7000 to 7999	
			2290	7000 to 7999	
1921	55-K	6	2290		
1922	6-55-K	6	1690	8000-8499	
1923	6-60	6	1690	9000 and up	
				Number plate on right front seat floor board	
				Discontinued	

LAFAYETTE—LaFayette Motors Co., Indianapolis, Ind.					
Year	Model	Cyls.	Price	Serial Numbers	
1920	134	8	\$5625	1001 and up	
1922	134	8	4850		
				Number on front floor board	
1922	134	8	\$4090	1731-2284	
1923	134	8	5000	2284-2624	
1924	134	8	5000	2625 and up	
				Number on front motor leg, right side	
				Discontinued	

LASALLE—Cadillac Motor Car Co., Detroit, Mich.					
Year	Model	Cyls.	Price	Serial Numbers	
1927	...	8	\$2495	200001 and up	
				Engine number stamped on name plate on front of dash and on crankcase just below water inlet on right hand side	
				Superseded by Chrysler 4	
				Discontinued	

LEACH—Leach-Biltwell Motor Car Co., Los Angeles, Cal.					
Year	Model	Cyls.	Price	Serial Numbers	
1921	999	6	\$5200	8000 to 975	
1922				Production limited	
				On instrument under hood.	
				Discontinued	

LEXINGTON (Formerly Howard)—Lexington Motor Co., Connersville, Ind.

Year	Model	Cyls.	Price	Serial Numbers	
1920	S	6	\$1885	18001 up	
1921	S	6	1885	19001 and up	
	T	6	2785	30001 and up	
1922	S	6	2100	26548-26592	
1923	23	6	2285	31120-31308	
1924	CC	6	1795	37251-39999	
1924	MM	6	1995	50000 and up	
1925	Concord	6	1595	50800	
1925	M Man	6	2095	to 40650	
1926	6-50	6	1795	50801 and up	
				Number plate on dash under hood, on left front spring crown, left rear motor arm, and on right side of rear side rail	
				Number on right front spring hanger Discontinued	

LINCOLN—Lincoln Motor Car Co., Detroit, Mich.

Year	Model	Cyls.	Price	Serial Numbers	
1920	...	8	\$4600	1 and up	
1921	...	8	4300	838-3131	
1922	...	8	3800	3152-8709	
				Number on front of dash on right side	
1923	8	8	\$3800	8710-16434	
1924	8	8	4000	16435-23612	
1925	8	8	4000	23613 and up	
				Number on left side frame channel just ahead of radiator Discontinued	

MAXWELL—Maxwell-Chalmers Motor Co., Detroit, Mich. (See Chrysler Motors.)

Year	Model	Cyls.	Price	Serial Numbers	
1920	25 7-1-19	4	\$895	266801 up	
	7-12-19	4	985		
1921	25	4	845	329691 and up	
	25	4	885	341708-388529	
1923	25	4	885	388530	
1924	25c	4	895	444232 to 492824	
1925	25c	4	895	492825 and up	
				Number on left hand side of driver's seat and rear right hand frame horn.	
				Superseded by Chrysler 4	
				Discontinued	

MERCER—Mercer Automobile Co., Trenton, N. J.

Year	Model	Cyls.	Price	Serial Numbers	
1920	Series 5	4	\$4950	9001 and up	
1921	Series 5	4	4500	12000-16500	
1922	Series 5	4	3950	16500-19640	
1923	Series 5	4	3750	20240-20258	
1924	Series 6	6	4500	21000 and up	
1925	Series 6	6	4500	21000 and up	
				Number on right hand rear spring hanger Discontinued	

MITCHELL—Mitchell Motors Co., Racine, Wis.

Year	Model	Cyls.	Price	Serial Numbers	
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NOMA—Noma Motors Corp., New York, N. Y.					
Year	Model	Cyls.	Price	Serial Numbers	
1920	1	6	\$2900	300-600	
1921	1C	6	3200	600 and up	
1922	3C	6	3100	2000 and up	
1923	4C	6	2500	3000 and up	
	Numbers on front spring				
	Discontinued				

OAKLAND—Oakland Motor Car Co., Pontiac, Mich.					
Year	Model	Cyls.	Price	Serial Numbers	
1920	34-C	6	\$1235	11700134 to 15970034	
1921	34-C	6	1395	11700134 to 15970034	
1922	34-D	6	1145	11700134 to 16750034	
1923	6-44	6	1145	1-44 to 1025044	
	6-44	6	995	1025144 to 4115244	
1924	6-54	6	995	1-54 to 3707054	
1925	6-54	6	1095	3710054-6452354	
1926	O. S.	6	1025	6460154 and up	
1924-27	6-54	6	\$1025	120801-54 and up	

OLDSMOBILE—Olds Motor Works, Lansing, Mich.					
Year	Model	Cyls.	Price	Serial Numbers	
1920	45-B	8	\$1395	45BT1 and up	
	45-B	8	1895	45BT1 and up	
1921	43A	4	1445	7 to 10786	
	47	8	1695	1 to 1990	
	46	8	2100	49 to 625	
1922	46	8	1735		
	47	8	1595		
1923	43A	4	975	43AT1 and up	
	47	8	1375	47T1 and up	
1924	30	6	890	Series B	
1925	30	6	875	Series C	
1925*	30	6	875	Series D	
1926†	30	6	875	Series E	
	Numbers on plate on body sill at right of the boards				
	Numbers do not run in consecutive order, but according to body styles.				
*Beginning July 14, 1925					
†Beginning June 14, 1926					
1926-27	Touring	6	... T-23001 and up		
1926-27	DeL. Tour.	6	... DT-12001 and up		
1926-27	Sedan	6	... S-16001 and up		
1926-27	DeL. Sedan	6	... DS-22001 and up		
1926-27	Coach	6	... K-19001 and up		
1926-27	DeL. Coach	6	... DK-18001 and up		
1926-27	Coupe	6	... C-6001 and up		
1926-27	DeL. Coupe	6	... DC-8001 and up		
1926-27	DeL. Rds.	6	... DR-3001 and up		
1926-27	Land. Sedan	6	... LS-1001 and up		
1926-27	Sport Coupe	6	... SC-1001 and up		
	Number on brass plate under front passenger seat				

OVERLAND—Willys-Overland, Inc., Toledo, O.
Manufacturers do not wish to publish any data of this description. For information, write Willys-Overland, Inc., Toledo, Ohio.

PACKARD—Packard Motor Car Co., Detroit, Mich.					
Year	Model	Cyls.	Price	Serial Numbers	
1920	Twin Six	12	\$5550	160130-165662	
	Number on right front leg of motor				
1921	Single Six	6	\$2975	U26 to 8850	
	Twin Six	12	6000	S20000 and up	
1922	126-133	6	2485	U9000 to 36999	
	Twin Six	12	3850	S21000 up	
	Number on plate on dash directly back of change speed lever				
1923	126-133	6	\$2535	U9000 to 36999	
1923	136-143	8	3650	200000 and up	
1924	226-233	6	2585	37000 and up	
1924	136-143	8	3650	200000 and up	
1925	326-333	6	2585	49501 and up	
1925	236-243	8	3650	20900 and up	
	Number on plate at left rear side of dash				
1927	426-433	6	\$2585	95007 and up	
1927	336-343	8	3750	220007 and up	

PAIGE—Paige-Detroit Motor Car Co., Detroit, Mich.					
Year	Model	Cyls.	Price	Serial Numbers	
1920	15-19	6	\$1595	200000 and up	
	M-18	6	2195	118000 and up	
	Serial and motor numbers are together on the left side of motor				
1921	6-42	6	\$1635	211903-217507	
	6-66	6	2875	126314-130948	
1922	6-44	6	1465	217480 up	
	6-66	6	2245	130950 up	
1923	6-70	6	2450	140000-143114	
1924	6	1895	143115-149896		
1925	6	2165	149897-163956		
1926	6-75	6	1695	415501 and up	
1926	6-65	6	1395	160001 and up	
	Number under right hand front seat				
1927	6-45	6	\$1095	318983 and up	
1927	6-65	6	1395	166461 and up	
1927	6-75	6	1695	417122 and up	
1927	8-85	8	2295	500001 and up	
	Number under R. H. front seat				

PATERSON—W. A. Paterson Co., Flint, Mich.					
Year	Model	Cyls.	Price	Serial Numbers	
1921	6-50	6	\$1925	15000-15690	
	6-50	6	2895	18001 and up	
1922	6-52	6	1550		
1923	6-52	6	1390		
	Number on left side of seat				
	Discontinued				

R. & V. KNIGHT—R. & V. Knight Motor Co., East Moline, Ill.					
Year	Model	Cyls.	Price	Serial Numbers	
1920	J	6	\$3150	20000-20700	
1921	J	6	3350	20701-21000	
1921	R	4	2150	50000-50700	
1922	J	6	2750	21001-21999	
1922	R	4	1850	50701-50999	
1923	J	6	2475	22000-22050	
1923	R	6	2850	22051-22450	
1923	H	4	1665	51000-52000	
	Number plate on dash or on right or left hand side of motor				
	Discontinued				

REO—Reo Motor Car Co., Lansing, Mich.					
Year	Model	Cyls.	Price	Serial Numbers	
1920	T-6	6	\$1750	12001 and up	
1921	T-6	6	1850		
1922	T-6	6	1595	37800-49500	
1923	T-6	6	1335	49500 and up	
1924	T-6	6	1595	64504 to 75850	
1925*	T-6	6	1595	75850-83998	
1925	T-6	6	1395	83994-97753	
	Number on right forward end of sub frame				
	Number on left forward end of sub frame				
	Discontinued				

REVERE—Revere Motors Company, Logansport, Ind.					
Year	Model	Cyls.	Price	Serial Numbers	
1920	C-D	4	\$4250		
1921	C	4	4650		
1922	C	4	3200	1600-1658	
1923	M	4	3200	1660 and up	
1924	M	4	3200	1667 and up	
1925	M	4	3200		
1925	25	6	2750		
	Number on left side front cross members				

RICKENBACKER—Rickenbacker Motor Co., Springfield, Ill.					
Year	Model	Cyls.	Price	Serial Numbers	
1922	A	6	\$1485	1-5000	
1923	B	6	1485	5001-13593	
1924	C	6	1595	13594-40000	
1924	A-8	8	2195	25000-25923	
1925	D	6	1395	40001-46999	
1925	S-A	8	2195	25924-27499	
1925-26	E	6	1495	47000 and up	
1925-26	B	8	1995	27500 and up	
	Number on plate at heel board, left side front seat				
	Beginning August, 1925				

ROAMER—Roamer Motors, Kalamazoo, Mich.					
Year	Model	Cyls.	Price	Serial Numbers	
1921	654-E	6	\$2650		
1922	6-54E	6	\$25		

Prices, Weights and Equipment of Current Passenger Car Models

**Important Changes
in Models and Prices
are included in these
tables covering all the
1928 Models which
have been announced
to date.**

Passengers and Model	F.O.B. Price	Doors	Shipping Weight	Standard Equipment	Passengers and Model	F.O.B. Price	Doors	Shipping Weight	Standard Equipment	Passengers and Model	F.O.B. Price	Doors	Shipping Weight	Standard Equipment
CADILLAC "341"					"72"					DURANT				
2-4p. Roadster	\$3350	2	4440	aeghlmnprx	2-4p. Roadster	1495	2	3005	aeghmnrxw	"55"				
5p. Phaeton	3450	4		aeghlmnprx	2-4p. Sp. Rdstr.	1525	2	3005	aeghmnrxw	. . . Coupe	\$ 795			a
5p. Sp. Phaeton	3950	4		Beghlmnprx	2-4 S. Roadster	159	2	3005	aeghmnrxw	. . . Sedan	795	2		a
7p. Touring	3450	4	4665	aeghlmnprx	4p. Coupe	1595	2	3160	aeghmnrx	5p. Sedan	895	4		a
2-4p. Coupe	3295	2	4700	aeghlmnprx	2-4p. Coupe	1545	2	3130	aeghmnrx					
2-4p. Conv. Coupe	3495	2	4595	aeghlmnprx	5p. Roy. Sedan	1595	4	3225	aeghmnrtx	"65"				
5p. Coupe	3495	2	4730	aeghlmnprtx	5p. Town Sedan	1595	4	3270	aeghmnrx	5-p. Touring	795	4		aghmn
5p. Sedan	3595	4	4845	aeghlmnprx	2-4p. Sp. Rdstr.	1745	2	3100	aeghmnrx	2-4p. Sp. Rdstr.	1025	2		Beghkmn
5p. Town Sedan	3395	4	4845	aeghlmnprux	5p. Sedan	1745	4	3235	aeghmnrtx	5-p. Sedan	975	2		aghmn
7p. Sedan	3695	4	4935	aeghlmnprtx	5p. Crown Sedan	1745	4	3235	aeghmnrtx	2-4p. Coupe	975	2		aghmn
5p. Imp. Sedan	3745	4	4880	aeghlmnprtx					5-p. Sedan	1045	2		aghmn	
7p. Imp. Sedan	3895	4	5063	aeghlmnprtx					5-p. Sedan	1075	4		aghmn	
5p. Imperial Cab	3745	4		aeghlmnprtx					5-p. Town Sedan	1175	4		Beghkmn	
7p. Imperial Cab	3895	4		aeghlmnprtx										
"Fleetwood"					"80"					"75"				
5p. Sedan	4095	4		aeghlmnprtx	2-4p. Roadster	2795	3		aeghlmnrxw	5-p. Sedan	1385	4		aghmn
5p. Sedan Cab	4095	4		aeghlmnprtx	5p. Sedan	2145	4	4185	aeghlmnrx	5-p. Town Sedan	1550	4		Beghkmn
7p. Sedan	4195	4		aeghlmnprtx										
7p. Sedan Cab	4195	4		aeghlmnprtx										
6p. Imperial	4245	4		aeghlmnprtx										
5p. Imperial Cab	4245	4		aeghlmnprtx										
7p. Imperial	4445	4		aeghlmnprtx										
7p. Imperial Cab	4445	4		aeghlmnprtx										
... Town Cab Con	5000	4		aeghlmnprtx										
... Town Cab Con	5500	4		aeghlmnprtx										
... LimBro'm Con	5500	4		aeghlmnprtx										
CHANDLER														
"Big Six"														
7p. Touring	\$1695	4	3360	ahmnw										
5p. Met. Sedan	1525	4	3570	ahjmnu										
4p. Coupe	1675	2	3435	ahmn										
3p. Ctry. Club	1675	2	3435	ahmn										
7p. Sedan Del.	1795	4	3725	ahmtnuv										
5p. Royal Sed.	1725	4	3645	aeghlmnpx										
... Cabriolet														
"Spec. Six"														
5p. Touring	995	4	2475	ah										
5p. Sportster	1165	4	2650	ahw										
5p. Sedan	995	4	2685	ah										
3p. Coupe	1055	2	2620	ah										
2-4p. Coupe	1155	2	2650	ah										
... Cabriolet	1215													
"Roy. St. 8"														
7p. Touring	1995	4	3645	ahjnmopwx										
4p. Coupe	1995	2	3610	aeghlmnpx										
4p. Ctry. Club	1995	2	3610	aeghlmopx										
5p. Sedan	1995	4	3760	aeghlmnpx										
7p. Sedan	2095	4	3870	aeghlmnpx										
3-5p. Cabriolet														
DIANA "St. 8"														
5p. Phaeton	\$1695	4	3100	agmn										
5p. Roy. Roadster	1795	2	2995	Bgnmw										
5p. B. Rdstr.	1895	2	2995	Bgnmw										
5p. Cab. Rdstr.	1995	2	3160	ahgnm										
5p. Cab. Rdstr.	2295	2	3160	ahgnm										
5p. 4d. Sedan	2095	4	3275	ahgnnot										
5p. 2d. Sedan	1795	2	3170	ahgnno										
135" W. B.														
7p. Touring	1795	4	3336	agmn										
DODGE BROS.														
"124"														
5p. Touring	\$795	4	2581	Ar										
2p. Roadster	795	2	2454	Ar										
2p. Sp. Roadster	845	2	2530	Der										
5p. Sp. Touring	845	4	2679	Der										
"128"														
5p. Sedan	875	4	2600	Aehr										
5p. DeL. Sedan	930	4	2609	Aehrt										
2p. Coupe	855	2	2428	Aehrt										
4p. Cab. Rdstr.	955	2	2463	Behr										
"Victory 6"														
5p. Sedan	1095	4												
"Senior"														
4p. Cab. Rdstr.	1595	2	3333	Cehmrtx										
5p. Sedan	1495	4												
5p. Sedan	1595	4	3412	Cehmrtx										
4p. Coupe	1570	2	3315	Cehmrtx										
du PONT "E"														
4p. Roadster	\$2800	4	3700	aeghkmnpx										
5p. Touring	2800	4	3850	aeghkmnpx										
5p. Sedan	3200	4	3850	aeghkmnpx										
5p. Sedan	3400	4	4100	aeghkmnpx										
5p. Con. Sedan	3750	4	4100	Bfghkmnpx										
KEY TO SYMBOLS:														
A—Wood wheels with spare.														
—Wood wheels.														
B—Wire wheels with spare.														
—Wire wheels.														
C—Optional wheels with spare.														
—Type of wheels optional.														
D—Disk wheels with spare.														
—Disk wheels.														
E—Front and rear bumpers.														
F—Front bumper.														
G—Shock absorbers or snubbers.														
H—Automatic windshield wiper.														
i—Trunk and trunk rack.														
j—Trunk rack, no trunk.														
k—Spare tire.														
l—Spare tire lock.														
m—Engine heat indicator.														
n—Dash gasoline gage.														
—Car heater.														
p—Cigar lighter.														
r—Rear traffic signal.														
s—Spotlight.														
t—Vanity and smoking set.														
v—Vanity set.														
w—Windshield wings.														
x—Clock.														
—Overall length.														
—Prices on application.														

A—Wood wheels with spare.
—Wood wheels.
B—Wire wheels with spare.
—Wire wheels.
C—Optional wheels with spare.
—Type of wheels optional.

Prices, Weights and Equipment of Current Passenger Car Models

A—Wood wheels with spare.
 a—Wood wheels.
 B—Wire wheels with spare.
 b—Wire wheels.
 C—Optional wheels with spare.
 c—Type of wheels optional.

- D—Disk wheels with spare.
- d—Disk wheels.
- e—Front and rear bumpers.
- f—Front bumper.
- g—Shock absorbers or snubbers.
- h—Automatic windshield wiper.

KEY TO SYMBOLS

- KEY TO SYMBOLS**

 - Trunk and trunk rack.
 - Trunk rack, no trunk.
 - Spare tire.
 - Spare tire look.
 - Engine heat indicator.
 - Dash gasoline gas".
 - Car heater.
 - Cigar lighter.
 - Rear traffic signal.
 - Spotlight.
 - Vanity and smoking set.
 - Smoking set.

v—Vanity set.
 w—Windshield wings
 z—Clock.
 *—Overall length.
 \$—Prices on application

Prices, Weights and Equipment of Current Passenger Car Models

- A—Wood wheels with spare
- a—Wood wheels.
- B—Wire wheels with spare.
- b—Wire wheels.
- C—Optional wheels with spare
- c—Type of wheels optional.

- D—Disk wheels with spare.
- d—Disk wheels.
- e—Front and rear bumpers.
- f—Front bumper.
- g—Shock absorbers or snubbers.
- h—Automatic windshield wiper.

KEY TO SYMBOLS:

- | | |
|--------------------------|---------------------------|
| i—Trunk and trunk rack. | o—Car heater. |
| j—Trunk rack, no trunk. | p—Cigar lighter. |
| k—Spare tire. | r— Rear traffic signal. |
| l—Spare tire lock. | s—Spotlight. |
| m—Engine heat indicator. | t—Vanity and smoking set. |
| n—Dash gasoline gage. | u—Smoking set. |

✓—Vanity set.
 w—Windshield wings.
 x—Clock.
 *—Overall length.
 §—Prices on application

1928 Body and Equipment Specifications

NOTE: The body models listed below represent the lowest priced 4-5 passenger open and closed bodies fitted on each chassis

MAKE & MODEL OF CHASSIS	GENERAL			BODY					EQUIPMENT														
	Body Model	Price \$	Wheelbase (In.)	Tire Size (In.)	Weight of Complete Car (lbs.)	Number of Doors	Covering Materials			Type of Finish	Type of Windshield	Type of Wheels	Bumper	Snubbers or Shock Absorbers Fitted?	Windshield Wiper	Truck Rack	Engine	Thermometer	Dash Gas. Gage	Car Heater	Cigar Lighter or Smoking Set	Clock	Locks and Theft proof devices
							Body Framework Material	Body Panels	Rear Upper Quarter Sections	Upholstery													
Auburn.....76	Touring.....	120	28x5.25	4	M&W.	Steel.	††	††	Pyrox.	A..	Yes	Yes	Yes	No.	Yes	No.	Yes	No.	I, G.	D, I, G.			
Auburn.....76	Sedan.....	120	28x5.25	4	M&W.	Steel.	††	††	Pyrox.	A..	Yes	Yes	Yes	No.	Yes	No.	Yes	No.	G, I.				
Auburn.....88	Touring.....	125	30x6.00	4	M&W.	Steel.	††	††	Pyrox.	A..	Yes	Yes	Yes	No.	Yes	No.	Yes	No.	D, G, I.				
Auburn.....115	Touring.....	125	30x6.00	4	M&W.	Steel.	††	††	Pyrox.	A..	Yes	Yes	Yes	No.	Yes	No.	Yes	No.	G, I.				
Auburn.....115	Sedan.....	130	30x6.20	4	M&W.	Steel.	††	††	Pyrox.	A..	Yes	Yes	Yes	No.	Yes	No.	Yes	No.	D, G, I.				
Buick.....115	Touring DeL.	1225	114½ 31x5.25	3040	M&W.	Steel.	Fabrc.	Leather.	Fabric.	2 A.	No.	Yes	Yes	No.	Yes	No.	Yes	No.	I, S, T.	D, I, S, T.			
Buick.....120	Sedan.....	1495	120 33x6.00	3870	M&W.	Steel.	Mohair.	R C F.	Pyrox.	1 A.	No.	Yes	Yes	No.	Yes	No.	Yes	No.	D, I, S, T.				
Buick.....128	(Spt. Touring.	1525	128 33x6.00	4050	M&W.	Steel.	Fabric.	Leather.	Fabric.	2 A.	No.	Yes	Yes	No.	Yes	No.	Yes	No.	D, I, S, T.				
Buick.....128	Bro. Sedan.	1925	128 33x6.00	4050	M&W.	Steel.	††	Mohair.	R C F.	Pyrox.	1 A.	No.	Yes	Yes	No.	Yes	No.	Yes	No.	D, I, S, T.			
Cadillac.....341	Town Sedan.	3395	140 32x6.75	4845	Steel.	Steel.	Optional.	Py-Fa.	Pyrox.	1 A.	Yes	Yes	Yes	No.	Yes	No.	Yes	No.	G, T.				
Chandler.....Big 6	Metro Sedan.	1525	124 32x6.00	3570	M&W.	Steel.	Mohair°.	Py-Fa.	Pyrox.	1 A.	No.	Yes	Yes	No.	Yes	No.	Yes	No.	D, G, T.				
Chandler.....Spec. 6	Touring.....	995	109 30x5.00	2475	M&W.	Steel.	Leather.	Py-Fa.	Pyrox.	1 A.	No.	Yes	Yes	No.	Yes	No.	Yes	No.	I, S.	D, I.			
Chandler.....Roy. 8	Sedan.....	995	109 30x5.00	2685	M&W.	Steel.	Mohair.	Py-Fa.	Pyrox.	1 A.	No.	Yes	Yes	No.	Yes	No.	Yes	No.	D, I.				
Chevrolet.....	Touring.....	1995	124 32x6.00	3760	M&W.	Steel.	Mohair°.	Py-Fa.	Pyrox.	1 A.	No.	Yes	Yes	No.	Yes	No.	Yes	No.	I, S.	D, I, S.			
Chevrolet.....	Coach.....	495	107 30x4.50	††	4	Steel.	††	Fab. Lea.	Pyrox.	1 D.	No.	Yes	Yes	No.	Yes	No.	Yes	No.	I, S.				
Chevrolet.....	Touring.....	585	107 30x4.50	††	2	Steel.	††	Plush.	Pyrox.	1 D.	No.	Yes	Yes	No.	Yes	No.	Yes	No.	D, I, S.				
Chrysler.....52	2-d Sedan.	750	153½ 29x4.75	2130	Wood.	Steel.	Leather.	R C F.	Pyrox.	2 A.	No.	Yes	Yes	No.	Yes	No.	Yes	No.	F.				
Chrysler.....62	2-d Sedan.	735	153½ 29x4.75	2300	Wood.	Steel.	Mohair.	R C F.	Pyrox.	1 A.	No.	Yes	Yes	No.	Yes	No.	Yes	No.	F.				
Chrysler.....72	Town Sedan.	1095	156½ 28x5.25	2740	Wood.	Steel.	Leather.	Fabric.	Pyrox.	2 A.	No.	Yes	Yes	No.	Yes	No.	Yes	No.	F.				
Chrysler.....80	Sedan.....	2945	191½ 30x6.75	4185	Wood.	Steel.	Mohair.	Py-Fa.	Pyrox.	1 A.	No.	Yes	Yes	No.	Yes	No.	Yes	No.	D, F, II.				
Cunningham....V-7	(Spt. Touring.	6150	130 31x6.75	45400	f Wood.	Steel.	††	††	††	1-2 C.	Yes	Yes	Yes	No.	Yes	No.	Yes	No.	I, T.				
Davis.....99	Sedan.....	1695	124 32x6.00	3760	M&W.	Steel.	Mohair°.	Py-Fa.	Pyrox.	1 C.	Yes	Yes	Yes	No.	Yes	No.	Yes	No.	D, I.				
Diana.....St. 8	Touring.....	1795	125½ 32x6.00	3170	M&W.	Steel.	Leather.	R C F.	Pyrox.	1 A.	No.	Yes	Yes	No.	Yes	No.	Yes	No.	G.				
Dodge.....124	Touring.....	795	116 31x5.25	2581	Steel.	Steel.	Mohair.	Py-Fa.	Pyrox.	1 A.	No.	Yes	Yes	No.	Yes	No.	Yes	No.	D, G.				
Dodge.....128	Sedan.....	875	108 29x5.00	2600	Steel.	Steel.	Leather.	R C F.	Pyrox.	1 A.	No.	Yes	Yes	No.	Yes	No.	Yes	No.	D, G.				
Dodge.....Vict. 6	Sedan.....	1095	112 29x5.00	4	Steel.	Steel.	††	††	††	1 A.	Yes	Yes	Yes	No.	Yes	No.	Yes	No.	I, S.				
Dodge.....Senior 6	Sedan.....	1495	116 31x6.00	4	M&W.	Steel.	Broad.	Fabric.	Pyrox.	2 A.	Yes	Yes	Yes	No.	Yes	No.	Yes	No.	D, G.				
duPont.....E	(Coupe.....	2800	125 32x6.20	3850	M&W.	Steel.	Alum.	Leather.	Py-Fa.	Pyrox.	1 A.	Yes	Yes	Yes	No.	Yes	No.	Yes	No.	I.			
Durant.....55	Sedan.....	3200	125 32x6.20	3850	M&W.	Steel.	Alum.	R C F.	Pyrox.	1 A.	Yes	Yes	Yes	No.	Yes	No.	Yes	No.	D, I.				
Durant.....65	Touring.....	795	107 29x5.00	4	Wood.	Steel.	††	††	††	1 A.	No.	Yes	Yes	No.	Yes	No.	Yes	No.	F.				
Durant.....75	Sedan.....	975	110 29x5.00	4	Wood.	Steel.	Mohair.	Py-Fa.	Pyrox.	1 A.	No.	Yes	Yes	No.	Yes	No.	Yes	No.	F, G.				
Eclair.....6-70	(Touring.	1695	125½ 32x6.00	3170	M&W.	Steel.	Leather.	R C F.	Pyrox.	1 A.	No.	Yes	Yes	No.	Yes	No.	Yes	No.	D, F, G.				
Eclair.....8-78	Sedan.....	1385	119 29.5 50	4	Wood.	Steel.	Mohair.	Py-Fa.	Pyrox.	1 A.	No.	Yes	Yes	No.	Yes	No.	Yes	No.	D, F, G.				
Eclair.....8-82	Touring.....	1295	117 28x5.25	2750	Wood.	Steel.	Mohair.	Py-Fa.	Pyrox.	1 A.	No.	Yes	Yes	No.	Yes	No.	Yes	No.	D, F, G, T.				
Eclair.....8-91	Sedan.....	1295	117 28x5.25	2750	Wood.	Steel.	Mohair.	Py-Fa.	Pyrox.	1 A.	Yes	Yes	Yes	No.	Yes	No.	Yes	No.	D, F, G, T.				
Eclair.....8-92	Touring.....	1295	117 28x5.25	2750	Wood.	Steel.	Mohair.	Py-Fa.	Pyrox.	1 B.	Yes	Yes	Yes	No.	Yes	No.	Yes	No.	F, G, T.				
Erskine.....6	Sedan.....	915	107 29x4.75	2300	Wood.	Steel.	Velour.	Fabric.	Pyrox.	1 B.	Yes	Yes	Yes	No.	Yes	No.	Yes	No.	I, S.				
Essex.....Super 6	(Spt. Touring.	795	107 29x4.75	2300	Wood.	Steel.	Velour.	Fabric.	Pyrox.	1 A.	Yes	Yes	Yes	No.	Yes	No.	Yes	No.	D, I, S.				
Falcon Knight.....12	Brougham.	1095	109½ 29x5.00	2765	Wood.	Steel.	Mohair.	R C F.	Pyrox.	1 A.	No.	Yes	Yes	No.	Yes	No.	Yes	No.	D, I, G.				
Ford.....A	Sedan.....	395	103½ 30x4.50	4000	M&W.	Steel.	Steel.	Wo-Fa.	Py-Fa.	Pyrox.	1 B.	Yes	Yes	Yes	No.	Yes	No.	Yes	No.	I.			
Franklin.....12	Touring.....	2975	128 31x6.20	4	M&W.	Steel.	Leather.	R C F.	Pyrox.	1 A.	No.	Yes	Yes	No.	Yes	No.	Yes	No.	I, T.				
Gardner.....Std. 75	Spt. Coupe.	2740	119 32x6.00	3440	M&W.	Steel.	Steel.	Fabrc.	Pyrox.	1 A.	No.	Yes	Yes	No.	Yes	No.	Yes	No.	D, F, I.				
Gardner.....Del. 75	Vic. Coupe.	1295	122 28x5.25	3290	Wood.	Steel.	Steel.	Mohair.	Py-Fa.	Pyrox.	1 A.	Yes	Yes	Yes	No.	Yes	No.	Yes	No.	D, F, I, G.			
Gardner.....85	Brougham.	1395	122 28x5.25	3290	Wood.	Steel.	Steel.	Py-Fa.	Pyrox.	1 A.	Yes	Yes	Yes	No.	Yes	No.	Yes	No.	F, G, T.				
Gardner.....95	Brougham.	1875	122 31x6.00	3360	Wood.	Steel.	Velour.	R C F.	Pyrox.	1 A.	Yes	Yes	Yes	No.	Yes	No.	Yes	No.	D, F, I.				
Hudson.....Super 6&S	Coach-S.	2275	130 32x6.00	3690	Wood.	Steel.	Velour.	R C F.	Pyrox.	1 B.	Yes	Yes	Yes	No.	Yes	No.	Yes	No.	D, I, G.				
Hudson.....6	2-d Sedan.	1345	114 29x5.50	2975	M&W.	Steel.	Mohair.	Py-Fa.	Pyrox.	1 C.	Yes	Yes	Yes	No.	Yes	No.	Yes	No.	D, G.				
Hupmobile.....M-8	Sedan.....	120	31x6.00	4	Wood.	Steel.	Steel.	Steel.	Py-Fa.	Pyrox.	1 A.	Yes	Yes	Yes	No.	Yes	No.	Yes	No.	I.			
Hupmobile.....E-4	Touring.....	1795	125 32x6.00	3300	M&W.	Steel.	Steel.	Opt.	R C F.	Pyrox.	1 A.	No.	Yes	Yes	No.	Yes	No.	Yes	No.	D, F, I, T.			
Jordan.....JE	Sedan.....	2095	125 32x6.00	3515	M&W.	Steel.	Steel.	Steel.	Py-Fa.	Pyrox.	1 B.C.	Yes	Yes	Yes	No.	Yes	No.	Yes	No.	F, I, S, T.			
Jordan.....R	(Blue Boy.	2195	116 30x6.00	3300	M&W.	Steel.	Steel.	Broad.	R C F.	Pyrox.	1 A.	No.	Yes	Yes	No.	Yes	No.	Yes	No.	D, F, I, G.			
Jordan.....J-1	Playboy.	1745	107 28x5.25	2800	Wood.	Steel.	Steel.	Leather.	R C F.	Pyrox.	1 A.	No.	Yes	Yes	No.	Yes	No.	Yes	No.	F, I, S, T.			
Kissel.....6-70	Brougham.	1595	107 28x5.25	2775	M&W.	Steel.	Steel.	Mohair.	R C F.	Pyrox.	1 A.	No.	Yes	Yes	No.	Yes	No.	Yes	No.	D, F, I, G.			
Kissel.....8-86	Phaeton.	1845	116 32x6.00	2915	2	Metal.	Steel.	Leather.	R C F.	Pyrox.	1 A.	No.	Yes	Yes	No.	Yes	No.	Yes	No.	I.			
Kissel.....8-80S	Brougham.	1495	117 32x6.00	3065	Wood.	Steel.	Steel.	Mohair.	R C F.	Pyrox.	1 A.	No.	Yes	Yes	No.	Yes	No.	Yes	No.	I.			
Kissel.....8-90	Phaeton.	1885	125 31x6.20	3240	Wood.	Steel.	Fabric.	Leather.	Fabric.	Pyrox.	1 A.	No.	Yes	Yes	No.	Yes	No.	Yes	No.	I.			
La Salle.....	Brougham.	1995	125 31x6.20	3345	Wood.	Steel.	Fabric.	Mohair.	Py-Fa.	Pyrox.	1 A.	No.	Yes	Yes	No.	Yes	No.	Yes	No.	I.			
Kissel.....8-90	Brougham.	2185	131 30x6.75	3220	Wood.																		

1928 Body and Equipment Specifications

NOTE: The body models listed below represent the lowest priced 4-5 passenger open and closed bodies fitted on each chassis.

MAKE & MODEL OF CHASSIS	GENERAL				BODY				EQUIPMENT													
	Body Model	Price \$	Wheelbase (In.)	Tire Size (In.)	Weight of Complete Car (Lbs.)	Number of Doors	Covering Materials			Type of Finish	Type of Windshield	Type of Wheels	Bumper	Snubbers or Shock Absorbers Fitted?	Windshield Wiper	Truck Rack	Engine Thermometer	Dash Gas. Gage	Car Heater	Cigar Lighter or Smoking Set	Clock	Locks and Theft proof devices
							Body Framework Material	Body Panels	Rear Upper Quarter Sections													
Locomobile 48	Sportif	9600	142	33x6.75	5030	4	Wood	Alum.	Leather	Py-Fa.	††	2 A.	Yes	Yes	Yes	Yes	No	No	No	Yes	I, T.	
Locomobile 48	Vict. Sedan	12500	142	33x6.75	5600	4	Wood	Alum.	Broad.	Leather	††	2 A.	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	D, I, T.	
Locomobile 90	Sportif	5900	138	33x6.75	4475	4	Wood	Alum.	Leather	Fabric	††	2 A.	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	
► Marmon E-75	Vict. Sedan	7300	138	33x6.75	4842	4	Wood	Alum.	Mohair	Leather	††	2 A.	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	I, T, F.	
Marmon 68	Phaeton	3485	136	32x6.75	4017	4	Wood	Steel	R C F.	Leather	Pyrox.	—	A.	Yes	Yes	Yes	No	Yes	Yes	Yes	D, F, G, I.	
Marmon 68	Victoria	3485	136	32x6.75	4346	2	Wood	Steel	Steel	Broad.	R C F.	Pyrox.	—	A.	Yes	Yes	Yes	No	Yes	Yes	Yes	
Marmon 68	Sedan	1395	114	20x5.25	4	4 M&W.	Steel	Steel	Mohair	R C F.	Pyrox.	—	A.	Yes	Yes	Yes	No	Yes	Yes	Yes	F, G, T.	
Marmon 78	Speedster	1965	120	29x5.50	4	4 M&W.	Steel	Steel	Leather	R C F.	Pyrox.	—	A.	Yes	Yes	Yes	No	Yes	Yes	Yes	D, F, G, T.	
Marmon 78	Sedan	1895	120	29x5.50	4	4 M&W.	Steel	Steel	Broad.	R C F.	Pyrox.	—	A.	Yes	Yes	Yes	No	Yes	Yes	Yes	G, I.	
McFarlan TV6	Spt. Touring	5600	141	33x6.75	4700	4	Wood	Alum.	Opt.	R C F.	Varnish.	—	A.	Yes	Yes	Yes	No	Yes	Yes	Yes	D, I, T.	
McFarlan TV6	Sedan	6720	141	33x6.75	5200	4	Wood	Alum.	Opt.	R C F.	Varnish.	—	A.	Yes	Yes	Yes	No	Yes	Yes	Yes	I, T, F.	
McFarlan St. 8	Touring	2650	131	33x6.20	3400	4	Wood	Alum.	Opt.	R C F.	Varnish.	—	A.	Yes	Yes	Yes	No	Yes	Yes	Yes	I, T.	
Moon 6-72	Sedan	3180	131	33x6.20	3650	4	Wood	Alum.	Opt.	R C F.	Varnish.	—	A.	Yes	Yes	Yes	No	Yes	Yes	Yes	D, G.	
Moon 6-60	Touring	1395	120	29x5.50	4	4 M&W.	Steel	Steel	R C F.	Pyrox.	—	A.	Yes	Yes	Yes	No	Yes	Yes	Yes	G, I.		
Moon 6-60	Coach	1045	110	29x4.75	2340	4	Wood	Steel	Felour	R C F.	Pyrox.	—	A.	Yes	Yes	Yes	No	Yes	Yes	Yes	D, G.	
Moon 6-60	Touring	1195	113	30x5.25	2560	4	Wood	Steel	R C F.	Pyrox.	—	A.	Yes	Yes	Yes	No	Yes	Yes	Yes	G.		
Moon 8-80	Sedan	1195	113	30x5.25	2710	2	4 M&W.	Steel	Mohair	R C F.	Pyrox.	—	A.	Yes	Yes	Yes	No	Yes	Yes	Yes	D, G.	
Moon 8-80	(Touring)	865	108 ^{1/2}	30x5.00	2225	4	Wood	Steel	Leather	Fabric	Pyrox.	—	A.	Yes	Yes	Yes	No	Yes	Yes	Yes	G.	
Nash Std. 6	Sedan	895	108 ^{1/2}	30x5.00	2450	2	Wood	Steel	Velour	Fabric	Pyrox.	—	A.	Yes	Yes	Yes	No	Yes	Yes	Yes	D, G.	
Nash Spec.	Touring	1135	124	30x5.25	2980	4	Wood	Steel	Leather	Fabric	Pyrox.	—	A.	Yes	Yes	Yes	No	Yes	Yes	Yes	G.	
Nash Spec.	Sedan	1215	124 ^{1/2}	30x5.25	3150	2	Wood	Steel	Mohair	Fabric	Pyrox.	—	A.	Yes	Yes	Yes	No	Yes	Yes	Yes	D, G.	
Nash Adv.	Touring	1340	121	32x6.00	3400	4	Wood	Steel	Leather	Fabric	Pyrox.	—	A.	Yes	Yes	Yes	No	Yes	Yes	Yes	G.	
Oakland AA-6	Sedan	1045	117	29x5.50	2620	4	Wood	Steel	Fabric	Leather	Pyrox.	—	A.	Yes	Yes	Yes	No	Yes	Yes	Yes	D, G.	
Oldsmobile 6	Sedan	113 ^{1/2}	131 ^{1/2}	28x5.25	2980	4	Wood	Steel	Velour	Fabric	Pyrox.	—	A.	Yes	Yes	Yes	No	Yes	Yes	Yes	I, T.	
Overland Whippet 4	Coach	625	100 ^{1/2}	28x4.75	1955	4	Wood	Steel	Fab Lea.	Fabric	Pyrox.	—	A.	Yes	Yes	Yes	No	Yes	Yes	Yes	I.	
Packard 526	Phaeton	2275	126	32x6.00	3665	4	Wood	Steel	Leather	Fabric	Pyrox.	—	A.	Yes	Yes	Yes	No	Yes	Yes	Yes	I, T.	
Packard 533	Sedan	2285	126	32x6.00	4000	4	Wood	Steel	Broad.	Fabric	Pyrox.	—	A.	Yes	Yes	Yes	No	Yes	Yes	Yes	D, I, T.	
Packard 533	Club Sedan	2885	133	32x6.75	4085	4	Wood	Steel	Broad.	Fabric	Pyrox.	—	A.	Yes	Yes	Yes	No	Yes	Yes	Yes	D, I, T.	
Packard 443	Club Sedan	3975	133	32x6.75	4370	4	Wood	Steel	Broad.	Fabric	Pyrox.	—	A.	Yes	Yes	Yes	No	Yes	Yes	Yes	D, I, T.	
Paige 6-45 ¹	Brougham	1095	109	30x5.25	2600	2	Wood	Steel	Leather	Fabric	Pyrox.	—	A.	Yes	Yes	Yes	No	Yes	Yes	Yes	No	
Paige 6-65 ¹	Brougham	1395	115	31x5.25	3215	2	Wood	Steel	Leather	Fabric	Pyrox.	—	A.	Yes	Yes	Yes	No	Yes	Yes	Yes	I, T.	
Paige 6-75 ¹	Sedan	1695	125	32x6.00	3350	4	Wood	Steel	Leather	Fabric	Pyrox.	—	A.	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	
Paige 8-85 ¹	Sedan	2255	131 ^{1/2}	32x6.00	3700	4	Wood	Steel	Leather	Fabric	Pyrox.	—	A.	Yes	Yes	Yes	No	Yes	Yes	Yes	T.	
Peerless 6-60	Sedan	1345	116	29x5.25	2895	4	Wood	Steel	Fabric	Leather	Pyrox.	—	A.	Yes	Yes	Yes	No	Yes	Yes	Yes	I, T.	
Peerless 6-80	Sedan	1395	116	32x6.00	2850	4	Wood	Steel	Leather	Fabric	Pyrox.	—	A.	Yes	Yes	Yes	No	Yes	Yes	Yes	I, T.	
Peerless 6-91	Sedan	1695	120	32x6.00	2930	4	Wood	Steel	Leather	Fabric	Pyrox.	—	A.	Yes	Yes	Yes	No	Yes	Yes	Yes	G, I, T.	
Peerless 8-69	Sedan	2995	126	33x6.20	3875	4	Wood	Steel	Velour	Fabric	Pyrox.	—	A.	Yes	Yes	Yes	No	Yes	Yes	Yes	D, G, I, T.	
Pierce-Arrow 81	Touring	3250	130	32x6.00	3560	2	4 M&W.	Alum.	Leather	Fabric	Pyrox.	—	A.	Yes	Yes	Yes	No	Yes	Yes	Yes	I, T.	
Pierce-Arrow 81	Touring	5875	138	33x6.75</td																		

Price Range of 1928 Passenger Cars

Roadsters

Make and Model	Price	Cyl.
*Ford—A	\$ 385	4
Chevrolet	495	4
Overland 4 Whippet	695	4
*Chrysler—52	725	4
*Pontiac—6	745	6
Dodge Brothers—124	795	4
Dodge Brothers—124	845	4
Erskine—6	965	6
Moon—6-60	995	6
*Durant—65	1,025	6
Oakland—AA-6	1,075	6
*Moon—6-60	1,095	6
*Chrysler—62	1,175	6
Buick—115	1,195	6
Gardner—Std. 75	1,195	8
*Moon—6-60	1,195	6
Nash Special	1,225	6
Studebaker—Dictator	1,245	6
Elcar—6-70	1,295	6
Gardner—Del. 75	1,295	8
*Peerless—6-60	1,295	6
Hupmobile—A	1,335	6
*Willys-Knight—Spec. 6	1,350	6
Elcar—Std. 8-78	1,395	8
Moon—A	1,395	6
Moon—6-72	1,395	6
Paige—6-65	1,395	6
Marmon—68	1,495	8
Nash—Advanced	1,475	6
*Buick—128	1,495	6
Elcar—8-78—Royal	1,495	8
*Peerless—6-80	1,495	6
*Chrysler—72	1,495	6
*Chrysler—72	1,525	6
Jordan—J-1	1,545	8
*Chrysler—72	1,595	6
Jordan—R	1,595	6
Roamer—8-78	1,595	8
Reo—Flying Cloud	1,685	8
Elcar—8-82	1,695	8
Gardner—35	1,695	8
*Peerless—6-91	1,695	6
Studebaker—Commander	1,695	6
Diana—St. 8	1,795	8
Willys-Knight—Great 6	1,850	6
Davis—99-28	1,885	8
Diana—St. 8	1,895	8
*Hupmobile—E-3	1,895	8
Marmon—78	1,965	8
Elcar—8-91	1,995	8
Gardner—95	2,085	8
*Packard—526	2,275	6
*Packard—533	2,385	8
LaSalle	2,525	8
Chrysler—Imp. 80	2,795	6
duPont—E	2,800	6
Pierce-Arrow—81	2,900	6
*Franklin—Series 12	2,975	6
*Peerless—8-69	2,995	8
McFarlan—St. 8	3,050	8
Stearns-Knight—F6-85	3,250	6
Cadillac—341	3,450	8
Packard—443	3,975	8
Lincoln—8	4,600	8
Stutz—BB Cus.	4,945	8
McFarlan—TV	5,600	6
Pierce-Arrow—36	5,875	6
Locomobile—90	5,900	6
Cunningham—V-7	6,150	8
Locomobile—48 Sportif	8	6
Auburn—76	+	6
Auburn—88	+	8
Auburn—88	+	8
Auburn—115	+	8
Auburn—115	+	8
Essex—Super 6	+	6
Velle—8-83	+	8
Oldsmobile—6	+	6

Make and Model

Make and Model	Price	Cyl.
Elcar—8-78 Royal	\$ 1,495	8
Buick—128	1,525	6
Nash—Advanced	1,540	6
Diana—St. 8	1,695	8
Elcar—8-82	1,695	8
Peerless—6-91	1,695	6
Jordan—R	1,745	6
Hupmobile—E-3	1,795	8
Willys-Knight—Great 6	1,850	6
Davis—99-28	1,885	8
Kissel—8-80	1,885	8
Kissel—8-80 125"	2,095	8
Kissel—8-80 132"	2,095	8
Kissel—8-90	2,185	8
Packard—526	2,275	6
Packard—533	2,385	6
Kissel—8-90 131"	2,395	8
Kissel—8-90 139"	2,395	8
LaSalle	2,495	8
Roamer—8-88	2,495	8
McFarlan—St. 8	2,650	8
duPont—E	2,800	6
Locomobile—8-80	2,850	8
Franklin—Series 12	2,975	6
LaSalle	2,995	8
Pierce-Arrow—81	3,100	6
McFarlan—St. 8	3,180	8
Stearns-Knight—F6-85	3,250	6
Cadillac—341	3,450	8
Stutz—BB De L.	3,460	8
Marmon—E-75 Speedster	3,485	6
Marmon—E-75 Touring	3,485	6
Stutz—BB Cus.	3,595	8
Stutz—BB Cus.	3,845	8
Cadillac—341	3,950	8
Packard—443	3,975	8
Lincoln—8	4,600	8
Stutz—BB Cus.	4,945	8
McFarlan—TV	5,600	6
Pierce-Arrow—36	5,875	6
Locomobile—90	5,900	6
Cunningham—V-7	6,150	8
Locomobile—48 Sportif	8	6
Auburn—76	+	6
Auburn—88	+	8
Auburn—88	+	8
Auburn—115	+	8
Auburn—115	+	8
Essex—Super 6	+	6
Velle—8-83	+	8
Oldsmobile—6	+	6

Make and Model

Make and Model	Price	Cyl.
Franklin—Series 12	\$ 2,925	6
Locomobile—8-80	3,000	8
Pierce-Arrow—81	3,450	6
*Cadillac—341	3,495	8
Stearns-Knight—F6-85	3,550	6
Marmon—E-75	3,565	6
*Lincoln—8	4,600	8
Auburn—76	+	6
Auburn—88	+	8
Auburn—115	+	8

2, 3-Passenger Closed Cars

Make and Model

Ford—A \$ 495 4

*Ford—A 550 4

Overland 4 Whippet 625 4

Chrysler—52 725 6

Pontiac—6 745 6

*Chrysler—52 795 4

Durant—55 795 4

Dodge Brothers—128 855 4

Nash—Std. 6 875 6

Erskine—6 895 6

*Durant—65 975 6

Oakland—AA-6 1,045 6

Chandler—Spec. 6 1,055 6

Paige—6-45 1,095 6

Chrysler—62 1,125 6

*Oakland—AA-6 1,145 6

*Chandler—Spec. 6 1,155 6

Nash—Special 1,165 6

Velle—Std. 50 1,195 6

*Buick—115 1,195 6

Studebaker—Dictator 1,215 6

Chandler—Spec. 6 1,245 6

*Chrysler—62 1,265 6

*Velle—6-66 1,295 6

Willys-Knight—Spec. 6 1,295 8

Marmon—68 1,395 6

Studebaker—Commander 1,495 6

*Chrysler—72 1,545 6

*Peerless—6-80 1,565 6

Reo—Flying Cloud 1,625 6

Chandler—Big 6 1,675 6

Jordan—J-1 1,750 8

Roamer—8-70 1,895 8

*Marmon—78 1,985 8

Roamer—8-80 2,095 8

Gardner—85 2,095 8

*Hupmobile—E-3 2,195 8

*Packard—526 2,350 6

Franklin—Series 12 2,490 6

Gardner—90 2,495 8

*LaSalle 2,585 8

McFarlan—St. 8 3,180 8

Pierce-Arrow—81 3,250 6

*Cadillac—341 3,350 6

Marmon—E-75 3,485 6

Stutz—BB Cus. 3,495 8

LaSalle 3,600 8

Stutz—BB Cus. 3,695 8

Lincoln—8 5,000 8

Pierce-Arrow—36 6,375 6

Pierce-Arrow—36 6,600 6

*Willys-Knight—Std. 6 6,600 6

Falcon—Knight—12 6,600 6

Essex—Super 6 6,600 6

Hudson—S 6,600 6

*Oldsmobile—6 6,600 6

Oldsmobile—6 6,600 6

Chandler—Big 6 6,600 6

*Chandler—Roy. St. 8 6,600 4

Star—4 6,600 4

4, 5-Passenger Closed Cars

Make and Model

Ford—A \$ 495 4

Ford—A 570 4

Chevrolet 585 4

Overland 4 Whippet 625 4

Chevrolet 675 4

Chevrolet 715 4

Overland 4 Whippet 725 4

Chrysler—52 745 6

Pontiac—6 755 4

Overland 4 Whippet 795 4

Chrysler—52 795 6

Durant—55 795 6

Erskine—6 795 6

Pontiac—6 845 6

Chrysler—52 875 4

Dodge Brothers—128 875 4

Durant—55 895 6

Nash—Std. 6 895 6

Pontiac—6 925 6

Dodge Brothers—128 950 6

Erskine—6 Spt. Coupe 965 6

Erskine—6 Sedan 965 6

Durant—65 975 6

Chandler—Spec. 6 995 6

Nash—Std. 6 995 6

Paige—6-45 A 995 6

Moon—6-60 1,045 6

Oakland—AA-6 1,045 6

Durant—65 1,075 6

Chandler—Spe. 6 1,085 6

Nash—Std. 6 1,085 6

Dodge—Victory 6 1,095 6

Falcon—Knight—12 1,095 6

Convertible, 2-Passenger

Make and Model

*Chevrolet \$ 665 4

Dodge Brothers—128 995 4

Nash—Std. 6 995 6

*Durant—65 1,045 6

Moon—6-60 1,195 6

Paige—6-45 1,195 6

*Nash—Spec. 6 1,290 6

*Peerless—6-60 1,345 6

Moon—6-72 1,445 6

*Willys-Knight—Spec. 6 1,495 6

Dodge Brothers—Senior 1,595 6

Kissel—6-70 1,595 6

*Chrysler—72 1,745 6

Moon—A 1,795 6

Make and Model	Price	Cyl.	Make and Model	Price	Cyl.	Make and Model	Price	Cyl.
Paige—6-45	\$1,095	6	Davis—99-28 Coupe	\$1,885	8	McFarlan—St. 8	\$4,600	8
Paige—6-45 A	1,095	6	Davis—99-28 Sedan	1,885	8	Stutz—BB Wey. Cus.	4,745	8
Chrysler—62	1,145	6	Elcar—8-82	1,895	8	Lincoln—8 4-p. Sedan	4,800	8
Moon—6-60	1,145	6	Gardner—85	1,895	8	Packard—443 Coupe	4,950	8
Oakland—AA-6	1,145	6	Kissel—8-80 S	1,895	8	Packard—443 Club Sedan	4,950	8
Willys-Knight—Std. 6	1,145	6	Marmon—78	1,895	8	Stutz—BB Wey. Cus.	4,995	8
Velie—Std. 50	1,165	6	Paige—6-75	1,895	8	Stutz—BB Wey. Cus.	5,295	8
Durant—65	1,175	6	Peerless—6-91 4p. Sedan	1,895	6	Lincoln—8	5,500	8
Buick—115	1,195	6	Peerless—6-91 5p. Sedan	1,895	6	Stutz—BB Salon PW Sed.	6,345	8
Falcon-Knight—12	1,195	6	Buick—128	1,925	6			
Moon—6-60	1,195	6	Nash—Advanced	1,925	6	6, 7-Passenger Closed Cars		
Paige—6-45	1,195	6	Locomobile—8-70 Brougham	1,975	8	Make and Model	Price	Cyl.
Reo Wolverine	1,195	6	Locomobile—8-70 Sedan	1,975	8	Chandler—Big 6	\$1,795	6
Studebaker—Dictator	1,195	6	Roamer—8-80 Brougham	1,985	8	Nash—Advanced	1,990	6
Velie—6-66	1,195	6	Roamer—8-80 Sedan	1,985	8	Studebaker—Pres. 8	1,985	8
Nash—Special	1,215	6	Studebaker—Pres. 8	1,985	8	Buick—128	1,995	6
Chrysler—62	1,245	6	Chandler—Royal St. 8 Coupe	1,995	8	Paige—6-75	1,995	6
Moon—6-60	1,245	6	Chandler—Roy. St. 8 C'ty. Club	1,995	8	Chandler—Roy. St. 8	2,095	8
Willys-Knight—Std. 6	1,245	6	Chandler—Roy. St. 8 Sed.	1,995	8	Paige—6-75	2,145	6
Oakland—AA-6	1,265	6	Kissel—8-80S Vict.	1,995	8	Nash—Advanced	2,165	6
Velie—6-66	1,265	6	Kissel—8-80S Sed.	1,995	8	Studebaker—Pres. 8	2,250	8
Buick—115	1,275	6	Kissel—8-80	1,995	8	Hupmobile—E-3	2,345	8
Buick—115	1,295	6	Marmon—78	1,995	8	Hupmobile—E-3	2,495	8
Chrysler—62	1,295	6	Peerless—6-91	1,995	6	Paige—8-85	2,525	8
Elcar—6-70 Brougham	1,295	6	Reo—Flying Cloud	1,995	6	Elcar—8-92	2,565	8
Elcar—6-70 Sedan	1,295	6	Willys-Knight—Great 6	1,995	6	Paige—8-85	2,665	8
Gardner—75 Std. Vic. Coupe	1,295	8	Diana—St. 8	2,095	8	Packard—533	2,685	6
Gardner—75 Std. Sp. Coupe	1,295	8	Hupmobile—E-3	2,095	8	Packard—533	2,785	6
Moon—6-60	1,295	6	Kissel—8-80	2,095	8	Kissel—8-90	2,795	8
Nash—Special	1,295	6	Velie—8-88 Spec. Sedan	2,095	8	LaSalle	2,795	8
Reo Wolverine	1,295	6	Velie—8-88 Royal Sedan	2,095	8	Willys-Knight—Great 6	2,850	6
Studebaker—Dic. Coupe	1,295	6	Willys-Knight—Great 6	2,095	6	Kissel—8-90	2,895	8
Studebaker—Dic. Victoria	1,295	6	Hupmobile—E-3 Sedan	2,195	8	Willys-Knight—Great 6	2,950	6
Studebaker—Dic. Sedan	1,295	6	Hupmobile—E-3 Victoria	2,195	8	Franklin—Series 12	2,980	6
Royal	1,295	6	Jordan—JE Coupe	2,195	8	Franklin—Series 12	3,015	6
Willys-Knight—Spec. 6	1,295	6	Jordan—JE Victoria	2,195	8	Chrysler—Imp. "80"	3,075	6
Velie—Std. 50	1,325	6	Jordan—JE Sedan	2,195	8	Franklin—Series 12	3,080	8
Nash—Special	1,335	6	Studebaker—Pres. 8	2,250	8	Peerless—8-69	3,095	8
Hupmobile—A	1,345	6	Paige—8-85	2,255	8	Roamer—8-88	3,285	8
Peerless—6-60	1,345	6	Gardner—95	2,275	8	Peerless—8-69	3,295	8
Buick—115	1,375	6	Packard—526	2,285	6	Locomobile—8-80	3,350	8
Durant—75	1,385	6	Elcar—8-91 Coupe	2,295	8	Pierce-Arrow—81	3,450	6
Hudson—Super 6 Std.	1,385	6	Elcar—8-91 Bro'm	2,295	8	Chrysler—Imp. "80"	3,495	6
Hupmobile—A	1,385	6	Elcar—8-91 Sedan	2,295	8	Kissel—8-90	3,495	8
Gardner—75 Std.	1,395	8	Gardner—95	2,295	8	Locomobile—8-80	3,500	8
Elcar—8-78 Std. Coupe	1,395	8	Kissel—8-80	2,295	8	Pierce-Arrow—81	3,550	6
Elcar—8-78 Std. Sedan	1,395	8	Kissel—8-80	2,295	8	Kissel—8-90	3,585	8
Gardner—75 Del. Sp. Coupe	1,395	8	Kissel—8-90	2,395	8	Peerless—8-69	3,595	8
Gardner—75 Del. Vic. Coupe	1,395	8	La Salle	2,635	8	McFarlan—St. 8	3,680	8
Hupmobile—A	1,395	6	La Salle	2,650	8	Cadillac—Fisher	3,695	8
Marmont—68 Sedan	1,395	8	Packard—533 Coupe	2,685	6	Stearns-Knight—F6-85	3,750	6
Marmont—68 Coupe	1,395	8	Packard—533 Club Sedan	2,685	6	McFarlan—St. 8	3,780	8
Moon—6-60	1,395	6	Franklin—Series 12	2,740	6	Stutz—BB Cus.	3,895	8
Moon—A	1,395	6	Franklin—Series 12	2,790	6	Cadillac—Fisher Imp. Sedan	3,895	8
Paige—6-65 Brougham	1,395	6	La Salle	2,795	8	Cadillac—Fleet. Imp. Cab.	4,445	8
Paige—6-65 Land. Bro'm	1,395	6	Peerless—8-69	2,795	8	Stearns-Knight—F6-85	3,950	6
Peerless—6-80	1,395	6	Franklin—Series 12	2,815	6	Stutz—BB Cus.	3,995	8
Moon—6-72	1,395	6	Locomobile—8-80	2,850	8	Marmon—E-75	4,075	6
Nash—Advanced	1,425	6	Locomobile—8-80	2,900	8	Marmon—E-75	4,175	6
Moon—6-72 Std. Sedan	1,445	6	Franklin—Series 12	2,910	6	Cadillac—Fleetwood Sedan	4,195	8
Moon—6-72 Royal Sedan	1,445	6	La Salle	2,795	8	Cadillac—Fleet. Sed. Cab.	4,195	8
Nash—Special	1,445	6	Peerless—8-69	2,795	8	Cadillac—Fleet. Imp. Sedan	4,445	8
Marmont—68 Vic. Coupe	1,450	8	Franklin—Series 12	2,815	6	Cadillac—Fleet. Imp. Cab.	4,445	8
Buick—120	1,465	6	Locomobile—8-80	2,850	8	Lincoln—8	5,000	8
Buick—120	1,495	6	Locomobile—8-80	2,900	8	Packard—443	5,150	8
Dodge Brothers—Senior	1,495	6	Franklin—Series 12	2,910	6	Lincoln—8	5,200	8
Elcar—8-78 Royal Sedan	1,495	8	La Salle	2,795	8	Stutz—BB Wey. Cus.	5,245	8
Elcar—8-78 Royal Coupe	1,495	8	Peerless—8-69	2,995	8	Packard—443	5,250	8
Kissel—6-70	1,495	6	Chrysler—Imp. 80	2,995	8	Stutz—BB Wey. Cus. Lim.	5,495	8
Paige—6-65	1,495	6	McFarlan—St. 8 Sedan	3,180	8	Stutz—BB Wey. Land. Lim.	5,495	8
Gardner—75 Std.	1,495	8	Stearns-Knight—F6-85	3,180	8	Pierce-Arrow—36 Sed. Land.	5,875	6
Willys-Knight—Spec. 6	1,495	6	Bro'm	3,180	8	Pierce-Arrow—36 Encl. Lim.	5,875	6
Studebaker—Com. Vic.	1,495	6	Marmon—E-75	3,195	8	Lincoln—8	6,000	8
Studebaker—Com. Sedan	1,495	6	DuPont—E	3,200	6	Pierce-Arrow—36 Enc. Dr.	6,000	6
Chandler—Big 6	1,525	6	Pierce-Arrow—81	3,250	6	Pierce-Arrow—36 Sed. Land.	6,000	6
Moon—A	1,545	6	Pierce-Arrow—81	3,300	6	Stutz—BB Salon Cus.	6,345	8
Moon—6-72	1,545	6	Pierce-Arrow—81	3,350	6	Lincoln—8	6,400	8
Nash—Advanced	1,545	6	Pierce-Arrow—81	3,350	6	Lincoln—8	6,500	8
Durant—75	1,550	6	Stearns-Knight—F6-85	3,350	6	Lincoln—8	6,600	8
Dodge Brothers—Senior	1,570	6	du Pont—E	3,400	6	McFarlan—TV	6,720	6
Buick—120	1,575	6	Pierce-Arrow—81	3,400	6	Stutz—BB Salon Cus.	6,895	8
Velie—Spec. 6-77	1,585	6	Pierce-Arrow—81	3,450	6	McFarlan—TV	6,920	6
Chrysler—72 Coupe	1,595	6	Stearns-Knight—F6-85 Coupe	3,450	6	Lincoln—8	7,000	8
Chrysler—72 Royal Sedan	1,595	6	Stearns-Knight—F6-25 Sed.	3,450	6	Lincoln—8	7,200	8
Dodge Brothers—Senior	1,595	6	Marmon—E-75	3,485	6	Locomobile—90	7,500	6
Gardner—75 Del.	1,595	8	Cadillac—Fisher	3,495	8	Pierce-Arrow—36	7,500	6
Jordan—R Sp. Salon	1,595	6	Peerless—8-69	3,495	8	Pierce-Arrow—36	8,000	6
Jordan—R Sedan	1,595	6	Stutz—BB Cus.	3,495	8	Cunningham—V-7	8,100	8
Nash—Advanced	1,595	6	Marmon—E-75 Brougham	3,565	6	McFarlan—TV	9,000	6
Peerless—6-80	1,595	6	Marmon—E-75 Sedan	3,565	6	Locomobile—48 Tour. Lim.	+	6
Studebaker—Com. Coupé	1,625	6	Cadillac—Fisher	3,495	8	Locomobile—48 Brougham	+	6
Regal	1,625	6	Peerless—8-69	3,495	8	Locomobile—48 Lim. Encl. Dr.	+	6
Studebaker—Com. Vic. Regal	1,625	6	Stutz—BB Cus.	3,495	8	Locomobile—48 Cabriolet	+	6
Studebaker—Com. Sed.	1,625	6	Marmon—E-75	3,495	8	Auburn—115	+	8
Regal	1,625	6	Cadillac—Fleetwood Sedan	3,495	8	Stearns-Knight—J Sedan	+	8
Velie—Spec. 6-77	1,635	6	Stearns-Knight—F6-85 Sed.	3,700	6	Stearns-Knight—J Lim.	+	8
Chandler—Big 6	1,675	6	Sed. Lim.	3,700	6	Stearns-Knight—J Town Car	+	8
Reo—Flying Cloud	1,685	6	Cadillac—Fleet. Imp. Sedan	3,745	8	Hudson—Std. Sedan	+	6
Elcar—8-82	1,695	8	Cadillac—Fleet. Imp. Cab.	3,745	8			
Jordan—J-1 Cus. Sedan	1,695	8	Peerless—8-69	3,795	8			
Jordan—J-1 Cus. Vic.	1,695	8	La Salle	3,800	8			
Paige—6-75	1,695	6	Marmon—E-75	3,960	6			
Chandler—Big 6	1,725	6	Cadillac—Fleetwood Sedan	4,095	8			
Peerless—6-91	1,725	6	Cab.	4,095	8			
Chrysler—72	1,745	6	Stutz—BB Wey. Cus. Sedan	4,120	8			
Buick—128	1,765	6	Stutz—BB Wey. Cus. Sedan	4,120	8			
Nash Advanced	1,775	6	Stutz—BB Wey. Cus. Coupe	4,120	8			
Elcar—8-82	1,790	8	Stutz—BB Wey. Cus. Imp.	4,120	8			
Diana—St. 8	1,795	8	Stutz—BB Wey. Cus. Imp. Cab.	4,120	8			
Roamer—8-78	1,795	8	Cadillac—Fleet. Imp.	4,245	8			
Peerless—6-80 Spt. Sedan	1,795	6	Cadillac—Fleet. Imp. Cab.	4,245	8			
Peerless—6-80 Del. Sedan	1,795	6	Stutz—BB Wey. Cus.	4,420	8			
Gardner—85 Spt. Coupe	1,845	8	Stutz—BB Wey. Cus.	4,495	8			
Gardner—85 Vic. Coupe	1,845	8	La Salle	4,500	8			
Reo—Flying Cloud	1,845	6	Stutz—BB Wey. Cus.	4,545	8			
Buick—128	1,850	6	Lincoln—8	4,600	8			
Gardner—85	1,875	8						

—Price on application

+Price to be announced later

Mechanical Specifications of 1928 Passenger Cars

CAR MAKE AND MODEL	GENERAL		ENGINE		VALVES		FRONT END DRIVE		PISTONS		CONNECTING RODS AND CRANKSHAFT		OILING SYSTEM		FUEL						
	WHEELBASE (In.)	CHASSIS WEIGHT (Lbs.)	CHASSIS LUBRICATION	MAKE AND MODEL	No. of CYLINDERS Bore and Stroke	Piston Diameter (In.)	Maxim. B.H.P. at R.P.M.	Piston Suspension Ratio	Arrangement	Piston Material	Type	RODS	CRANKPIN BEARINGS	Water Circulation	Pump Type	Pressure to Main Bearings	Carburetor Type and Size (In.)				
Auburn.....76	120	285.25	Bij.	Lya.	WS 6-2 $\frac{1}{2}$ x4 $\frac{3}{4}$	19.84	185.0	4-5.05	L...	S.I.C.H.	Ch...	Mor.	Als...	1 $\frac{1}{2}$	3	2 $\frac{1}{2}$ x1 $\frac{1}{2}$	4 abe... Ge... Pu... Mar... 1 $\frac{1}{4}$				
Auburn.....88	125	306.20	Bij.	Lya.	GS 8-2 $\frac{1}{2}$ x3 $\frac{1}{2}$	26.4	246.7	88-3200	4-5.15	L...	Mor.	Als...	1 $\frac{1}{2}$	4	3 $\frac{1}{2}$ x2 $\frac{1}{2}$	5 abe... Ge... Pu... Mar... 1 $\frac{1}{4}$					
Auburn.....115	130	326.00	Bij.	Lya.	4MHD 8-3 $\frac{1}{2}$ x3 $\frac{1}{2}$	33.8	298.6	61.115-3300	4-5.35	L...	Mor.	Als...	1 $\frac{1}{2}$	3	3 $\frac{1}{2}$ x2 $\frac{1}{2}$	5 abe... Ge... Pu... Mar... 1 $\frac{1}{4}$					
Buick.....115	114 $\frac{1}{2}$	315.25	P.Ze.	Own.	6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	23.44	207.0	63-2800	3-4.79	L...	S.I.C.H.	Ge...	GE.	CI.	2 $\frac{1}{4}$	3	3x2 $\frac{1}{2}$	4 abe... Ge... Pu... Mar... 1 $\frac{1}{2}$			
Buick.....120-128	120-128	334.00	41 $\frac{1}{2}$ -43	P.Ze.	Own.	6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	29.4	274.0	77-2800	3-4.3	L...	S.I.C.H.	Ge...	GE.	CI.	2 $\frac{1}{4}$	3	3 $\frac{1}{2}$ x2 $\frac{1}{2}$	4 abe... Ge... Pu... Mar... 1 $\frac{1}{2}$		
Cadillac.....341	140	326.75	50	Pr.Al.	Own.	8-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	35.1	341.0	90-3000	3-4.9	L...	S.I.C.H.	Ch...	Mor.	NI.	1 $\frac{1}{2}$	3	2 $\frac{1}{2}$ x3 $\frac{1}{2}$	3 abe... Ge... Pu... Own...		
Chandler.....Big 6	124	245.00	44	Bow.	Own.	35A 6-3 $\frac{1}{2}$ x5	29.4	288.6	63-2300	4-5.0	L...	S.I.C.H.	Ch...	Mor.	CI.	10 $\frac{1}{2}$	3	2 $\frac{1}{2}$ x3 $\frac{1}{2}$	4 abe... Ge... Pu... Sch... 10 $\frac{1}{2}$		
Chandler.....Spec. 6	109	188.00	305.00	36	Bow.	Own.	31A 6-3 $\frac{1}{2}$ x4	21.6	180.2	45-2600	4-5.0	L...	S.I.C.H.	Ch...	Mor.	CI.	2 $\frac{1}{4}$	3	1 $\frac{1}{2}$ x2 $\frac{1}{2}$	3 abe... Ge... Pu... Sch... 8 $\frac{1}{2}$	
Chandler.....Royal St. 8	124	260.00	326.00	44	Bow.	Own.	37A 6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	33.8	314.0	80-3000	4-5.0	L...	S.I.C.H.	Ch...	Mor.	CI.	10 $\frac{1}{2}$	3	1 $\frac{1}{2}$ x2 $\frac{1}{2}$	3 abe... Ge... Pu... Sch... 10 $\frac{1}{2}$	
Chevrolet.....107	170	304.50	20.5	Pr.Al.	Own.	4-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	21.7	170.0	35-2200	3-4.5	L...	S.I.C.H.	Ge...	Al.	NI.	1 $\frac{1}{2}$	3	1 $\frac{1}{2}$ x2 $\frac{1}{2}$	3 abe... Ge... Pu... Car...		
Chevrolet.....52	164	294.75	.....	P.Ze.	Own.	4-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	21.0	170.0	38-2800	3-4.7	L...	S.I.C.H.	Ge...	Al.	NI.	2	3	1 $\frac{1}{2}$ x2 $\frac{1}{2}$	3 abe... Ge... Pu... Car...	
Chrysler.....62	166 $\frac{1}{2}$	285.25	.....	P.Ze.	Own.	6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	21.6	180.0	54-3000	4-5.0	L...	S.I.C.H.	Ch...	Mor.	CI.	2 $\frac{1}{4}$	3	1 $\frac{1}{2}$ x2 $\frac{1}{2}$	3 abe... Ge... Pu... Str...	
Chrysler.....72	172 $\frac{1}{2}$ +	242.00	306.00	P.Ze.	Own.	6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	24.3	248.0	75-3000	4-5.1	L...	S.I.C.H.	Ch...	Mor.	CI.	10 $\frac{1}{2}$	3	1 $\frac{1}{2}$ x2 $\frac{1}{2}$	7 abe... Ge... Pu... Ball...		
Chrysler.....80	191 $\frac{1}{2}$	322.00	336.75	P.Ze.	Own.	6-3 $\frac{1}{2}$ x5	31.5	309.3	112-3000	4-6.0	L...	S.I.C.H.	Ch...	Mor.	CI.	2 $\frac{1}{4}$	3	1 $\frac{1}{2}$ x2 $\frac{1}{2}$	7 abe... Ge... Pu... Str... 1 $\frac{1}{2}$		
Cunningham.....V7	142	322.00	336.75	48	Pr.Al.	Own.	8-3 $\frac{1}{2}$ x5	31.5	354.0	95-2400	4-6.0	L...	S.I.C.H.	Ge...	GE.	CI.	10 $\frac{1}{2}$	3	1 $\frac{1}{2}$ x2 $\frac{1}{2}$	3 abe... Ge... Pu... Str... 1 $\frac{1}{2}$	
Davis.....99	120	248.00	306.00	30	Pr.Al.	Con...	14S 8-3 $\frac{1}{2}$ x4	28.8	288.6	84-3200	4	L...	S.I.C.H.	Ch...	Mor.	CI.	2 $\frac{1}{4}$	3	4 $\frac{1}{2}$ x2 $\frac{1}{2}$	5 abe... Ge... Pu... Str... 1 $\frac{1}{2}$	
Dodge Brothers.....124	116	315.25	38	P.Ze.	Own.	12Z 8-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	24.0	212.3	72-2950	4	L...	S.I.C.H.	Ch...	Mor.	CI.	2 $\frac{1}{4}$	3	4 $\frac{1}{2}$ x2 $\frac{1}{2}$	5 abe... Ge... Pu... Str... 1 $\frac{1}{2}$		
Dodge Brothers.....Vict. 6	112	279.50	39	P.Ze.	Own.	12Z 8-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	27.3	232.9	72-3000	4	L...	S.I.C.H.	Ch...	Mor.	CI.	2 $\frac{1}{4}$	3	4 $\frac{1}{2}$ x2 $\frac{1}{2}$	5 abe... Ge... Pu... Str... 1 $\frac{1}{2}$		
Dodge Brothers.....Senior 6	116	316.00	39	P.Ze.	Own.	12Z 8-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	27.3	232.9	72-3000	4	L...	S.I.C.H.	Ch...	Mor.	CI.	2 $\frac{1}{4}$	3	4 $\frac{1}{2}$ x2 $\frac{1}{2}$	5 abe... Ge... Pu... Str... 1 $\frac{1}{2}$		
Dodge Brothers.....E.	125	322.00	50	Pr.Al.	Wis.	Y	6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	27.3	268.3	75-3000	3-4.5	L...	S.I.C.H.	Ch...	Mor.	CI.	2	3	1 $\frac{1}{2}$ x2 $\frac{1}{2}$	5 abe... Ge... Pu... Str... 1 $\frac{1}{2}$	
daPont.....55	107	285.00	37	Pr.Al.	Con...	14L	6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	18.5	180.0	47-2800	4-5.4	L...	S.I.C.H.	Ch...	Mor.	CI.	2	3	4 $\frac{1}{2}$ x2 $\frac{1}{2}$	4 abe... Ge... Pu... Str... 1 $\frac{1}{2}$	
Durant.....65	110	285.00	37	Pr.Al.	Con...	15L	6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	19.84	185.0	47-2800	4-5.4	L...	S.I.C.H.	Ch...	Mor.	CI.	2	3	4 $\frac{1}{2}$ x2 $\frac{1}{2}$	4 abe... Ge... Pu... Str... 1 $\frac{1}{2}$	
Durant.....75	119	285.50	37	Con...	6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	27.34	28.0	18.0	133.0	4	L...	S.I.C.H.	Ch...	Mor.	CI.	3	3	4 $\frac{1}{2}$ x2 $\frac{1}{2}$	4 abe... Ge... Pu... Str... 1 $\frac{1}{2}$		
Eclair.....6-70	117	200.00	285.25	39	O.e.	Lya.	6-2 $\frac{1}{2}$ x4 $\frac{1}{2}$	19.84	185.0	52-3000	4-4.9	L...	S.I.C.H.	Ch...	Mor.	CI.	1 $\frac{1}{2}$	4	3 $\frac{1}{2}$ x2 $\frac{1}{2}$	5 abe... Ge... Pu... Str... 1 $\frac{1}{2}$	
Eclair.....8-78	123	170.00	285.25	39	O.e.	Lya.	GT 8-2 $\frac{1}{2}$ x4 $\frac{1}{2}$	24.03	200.5	40-2200	4-5.0	L...	S.I.C.H.	Ch...	Mor.	CI.	1 $\frac{1}{2}$	4	3 $\frac{1}{2}$ x2 $\frac{1}{2}$	5 abe... Ge... Pu... Str... 1 $\frac{1}{2}$	
Eclair.....8-82	123	180.00	306.00	39	O.e.	Lya.	GT 8-2 $\frac{1}{2}$ x4 $\frac{1}{2}$	25.3	236.4	46-2500	4-4.9	L...	S.I.C.H.	Ch...	Mor.	CI.	1 $\frac{1}{2}$	4	3 $\frac{1}{2}$ x2 $\frac{1}{2}$	5 abe... Ge... Pu... Str... 1 $\frac{1}{2}$	
Eclair.....8-91 & 8-92	127-134	255.00	326.20	46	Bow.	Lya.	GT 8-2 $\frac{1}{2}$ x4 $\frac{1}{2}$	26.4	246.7	70-2900	4-4.9	L...	S.I.C.H.	Ch...	Mor.	CI.	1 $\frac{1}{2}$	4	3 $\frac{1}{2}$ x2 $\frac{1}{2}$	5 abe... Ge... Pu... Str... 1 $\frac{1}{2}$	
Erstine.....9	107	170.00	294.75	36	Pr.Al.	Con...	9F 6-2 $\frac{1}{2}$ x4 $\frac{1}{2}$	18.8	160.4	45-3000	4-4.87	L...	S.I.C.H.	Ch...	Mor.	CI.	1 $\frac{1}{2}$	4	3 $\frac{1}{2}$ x2 $\frac{1}{2}$	4 abe... Ge... Pu... Str... 1 $\frac{1}{2}$	
Essex.....Super 6	110 $\frac{1}{2}$	285.50	40	Own.	Own.	6-2 $\frac{1}{2}$ x4 $\frac{1}{2}$	17.3	183.0	4	L...	S.I.C.H.	Ch...	Mor.	CI.	1 $\frac{1}{2}$	3	3 $\frac{1}{2}$ x2 $\frac{1}{2}$	4 abe... Ge... Pu... Str... 1 $\frac{1}{2}$			
Falcon Knight.....12	109 $\frac{1}{2}$	204.00	285x5.50	34	Pr.Al.	Own.	6-2 $\frac{1}{2}$ x4 $\frac{1}{2}$	20.7	187.0	52-3000	4-5.5	X...	F.	S.I.C.H.	Ch...	Mor.	CI.	1 $\frac{1}{2}$	4	3 $\frac{1}{2}$ x2 $\frac{1}{2}$	5 abe... Ge... Pu... Str... 1 $\frac{1}{2}$
Ford.....A	103 $\frac{1}{2}$	30x4.50	34	PG.	Own.	A 6-2 $\frac{1}{2}$ x4 $\frac{1}{2}$	24.03	200.5	40-2200	4-5.0	L...	S.I.C.H.	Ch...	Mor.	CI.	2 $\frac{1}{4}$	4	3 $\frac{1}{2}$ x2 $\frac{1}{2}$	5 abe... Ge... Pu... Str... 1 $\frac{1}{2}$		
Franklin.....Series 12	119-125	32x6.00 ^o	39	P.Ze.	Own.	6-2 $\frac{1}{2}$ x4 $\frac{1}{2}$	25.3	236.4	46-2500	4-4.4	L...	S.I.C.H.	Ch...	Mor.	CI.	2 $\frac{1}{4}$	4	3 $\frac{1}{2}$ x2 $\frac{1}{2}$	5 abe... Ge... Pu... Str... 1 $\frac{1}{2}$		
Gardner.....75	122	234.00	31x6.00	40	Pr.Al.	Loc...	GT 8-2 $\frac{1}{2}$ x4 $\frac{1}{2}$	24.2	235.7	65-3200	4-5.0	L...	S.I.C.H.	Ch...	Mor.	CI.	1 $\frac{1}{2}$	4	3 $\frac{1}{2}$ x2 $\frac{1}{2}$	5 abe... Ge... Pu... Str... 1 $\frac{1}{2}$	
Gardner.....85	125	252.00	31x6.00	40	Pr.Al.	Loc...	GT 8-2 $\frac{1}{2}$ x4 $\frac{1}{2}$	23.8	234.5	74-3200	4-5.0	L...	S.I.C.H.	Ch...	Mor.	CI.	1 $\frac{1}{2}$	4	3 $\frac{1}{2}$ x2 $\frac{1}{2}$	5 abe... Ge... Pu... Str... 1 $\frac{1}{2}$	
Gardner.....95	130	252.00	30x2.20	43	Pr.Al.	Loc...	MD 8-2 $\frac{1}{2}$ x4 $\frac{1}{2}$	23.8	245.0	115-3300	4-5.35	L...	S.I.C.H.	Ch...	Mor.	CI.	1 $\frac{1}{2}$	3	3 $\frac{1}{2}$ x2 $\frac{1}{2}$	5 abe... Ge... Pu... Str... 1 $\frac{1}{2}$	
Hudson.....O&S 118-127 $\frac{1}{2}$	114	31x6.00	42	Own.	Own.	6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	29.4	289.0	4	L...	F.	S.I.C.H.	Ch...	Mor.	CI.	1 $\frac{1}{2}$	4	3 $\frac{1}{2}$ x2 $\frac{1}{2}$	5 abe... Ge... Pu... Str... 1 $\frac{1}{2}$		
Hupmobile.....A	125	32x6.00	42	Pr.Al.	Own.	6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	25.3	232.0	4	L...	S.I.C.H.	Ch...	Mor.	CI.	1 $\frac{1}{2}$	4	3 $\frac{1}{2}$ x2 $\frac{1}{2}$	5 abe... Ge... Pu... Str... 1 $\frac{1}{2}$			
Hupmobile.....E $\frac{1}{2}$	120	31x6.00	42	Pr.Al.	Own.	6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	28.8	288.0	4	L...	S.I.C.H.	Ch...	Mor.	CI.	1 $\frac{1}{2}$	4	3 $\frac{1}{2}$ x2 $\frac{1}{2}$	5 abe... Ge... Pu... Str... 1 $\frac{1}{2}$			
Jordan.....R	107	285.00	28x5.25	35	Pr.Al.	Con...	12E 6-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	25.3	199.0	62-3000	4-5.0	L...	S.I.C.H.	Ch...	Mor.	CI.	2 $\frac{1}{4}$	4	3 $\frac{1}{2}$ x2 $\frac{1}{2}$	5 abe... Ge... Pu... Str... 1 $\frac{1}{2}$	
Jordan.....J1	116	32x6.00 ^o	39	Pr.Al.	Con...	14S 8-3 $\frac{1}{2}$ x4 $\frac{1}{2}$	25.3	236.4	46-2500	4-5.0	L...	S.I.C.H.	Ch...	Mor.	CI.	2 $\frac{1}{4}$	4	3 $\frac{1}{2}$ x2 $\frac{1}{2}$	5 abe... Ge... Pu... Str... 1 $\frac{1}{2}$		
Kissel.....6-70	117	234.00	31x6.00	40	Pr.Al.	Loc...	GT 8-2 $\frac{1}{2}$ x4 $\frac{1}{2}$	19.8	185	52-2900	4-5.15	L...	S.I.C.H.	Ch...	Mor.	CI.	1 $\frac{1}{2}$	4	3 $\frac{1}{2}$ x2 $\frac{1}{2}$	5 abe... Ge... Pu... Str... 1 $\frac{$	

Locomobile.....	8.70	31x6.00	41	Prize. | Con. | 10S-21/4x4/4	247.0 | 70-3000	4 | 5.1 | L- | ChN- | Mor- | Als- | Sch- |	
Locomobile.....	8.80	2600 33x6.75	45	Prize. | Lyc. | HHL. | S-31/4x4/2	26.4 | 1/2x2.5	4 | 5.1 | L- | ChN- | Mor- | Als- | Sch- |	
Locomobile.....	142	4225 33x6.75	48	Prze. | Own. | 6-3/8x5/4	26.8 | 90-3000	4 | 5.1 | L- | ChN- | Mor- | Als- | Sch- |	
Locomobile.....	138	4660 33x6.75	48	Prze. | Own. | 6-3/8x5/4	26.8 | 105-2100	4 | 5.25 | L- | ChN- | Mor- | Als- | Sch- |	
Marmont.....	68	114	295.25	38	Prze. | Own. | 8-21/4x4/4	24.2 | 201.9 | 72-3200	4 | 5.25 | L- | Sch- | Mor- | Als- | Str. 1/2
Marmont.....	78	136	295.50	40	Prze. | Own. | 8-21/4x4/4	27.6 | 216.0 | 85-3400	4 | 5.34 | L- | Sch- | Mor- | Als- | Str. 1/2
McFarlan.....	141	120	326.75	49	Prze. | Own. | 8-31/4x4/4	23.8 | 75-2800	4 | 5.00 | L- | Sch- | Mor- | Als- | Str. 1/2
McFarlan.....	St. 8	131-136	336.20	49	Prze. | Lyc. | 4H | 8-31/4x4/4	23.8 | 299.9 | 79-3000	4 | 5.00 | L- | Sch- | Mor- | Als- | Str. 1/2
Bow. | Lyc. | 4H | 8-31/4x4/4	52	572	520-120-2400	4	Prze. | Own. | 8-31/4x4/4	19.6 | 166.0 | 50-2600	4 | 4.65 | L- | ASk. | Mor- | CL- | Pour. | 21/4x1/4
Bow. | Lyc. | 4H | 8-31/4x4/4	53	572	520-120-2400	4	PrAl. | Con. | 7Z | 6-31/4x4/2	23.4 | 185.0 | 47-2600	4 | 4.78 | L- | ASk. | Mor- | CL- | Pour. | 21/4x1/4
Bow. | Lyc. | 4H | 8-31/4x4/4	53	572	520-120-2400	4	PrAl. | Con. | 26L | 6-21/4x4/4	19.8 | 185.0 | 47-2600	4 | 4.78 | L- | ASk. | Mor- | CL- | Pour. | 21/4x1/4
Pral. | Con. | 11E | 6-31/4x4/2	36	572	520-120-2400	4	PrAl. | Con. | 11E | 6-31/4x4/2	27.3 | 214.7 | 66-3150	4 | 4.93 | L- | ASk. | Mor- | CL- | Pour. | 21/4x1/4
Pral. | Con. | 15S-31/4x4/2	28.8	572	520-120-2400	4	PrAl. | Con. | 15S-31/4x4/2	28.8 | 268.7 | 86-3200	4 | 5.00 | L- | Sch- | Mor- | CL- | Pour. | 21/4x1/4
Pral. | Con. | 15S-31/4x4/2	316.20	572	520-120-2400	4	PrAl. | Own. | 320 | 6-31/4x4/4	23.4 | 184.0 | 45-2800	4 | 4.5 | L- | Sch- | Ge. | Mor- | CL- | Pour. | 21/4x1/4
Nash.....	Std. 6	1081/4	305.00	38	PrAl. | Own. | 320 | 6-31/4x4/4	23.4 | 184.0 | 45-2800	4 | 4.5 | L- | Sch- | Ge. | Mor- | CL- | Pour. | 21/4x1/4
Nash.....	Adv. 6	121-127	2750 3226.00	38	PrAl. | Own. | 320 | 6-31/4x4/4	23.4 | 279.0 | 70-2400	4 | 4.6 | L- | Sch- | Ge. | Mor- | CL- | Pour. | 21/4x1/4
Nash.....	Spec. 6	112 1/2	2425 305.25	38	PrAl. | Own. | 320 | 6-31/4x4/4	23.4 | 224.0 | 52-2800	4 | 4.69 | L- | Sch- | Ge. | Mor- | CL- | Pour. | 21/4x1/4
Oakland.....	A.6	117	295.50	36	PrAl. | Own. | 6-31/4x4/4	25.3 | 212.0 | 60-2800	3 | 4.8 | L- | Sch- | Ge. | Mor- | CL- | Pour. | 21/4x1/4
Oldsmobile.....	6	113 1/2	285.25	36	PrAl. | Own. | 6-31/4x4/4	24.4 | 197.5 | 55-2700	4 | 5.0 | L- | Sch- | Ge. | Mor- | CL- | Pour. | 21/4x1/4
Overland Whippet.....	96	100 1/4	288.75	36.2	PrAl. | Own. | 6-31/4x4/4	15.6 | 134.0 | 32-2800	4 | 5.0 | L- | Sch- | Ge. | Mor- | CL- | Pour. | 21/4x1/4
Packard.....	526 & 533	126-133	2945 326.00	44°	Bij... | Own. | 6-31/4x5	29.4 | 384.8 | 106-3200	4 | 4.5 | L- | Sch- | Ge. | Mor- | CL- | Pour. | 21/4x1/4
Packard.....	443	143	3550 326.00	52	Bij... | Own. | 6-31/4x5	19.8 | 185.0 | 106-3200	4 | 4.54 | L- | Sch- | Ge. | Mor- | CL- | Pour. | 21/4x1/4
Pague.....	6-65	115	3065.25	52	Prze. | Con. | 10L | 6-21/4x5	26.3 | 248.8 | 106-3200	4 | 4.5 | L- | Sch- | Ge. | Mor- | CL- | Pour. | 21/4x1/4
Pague.....	6-75	125	3163.25	52	Prze. | Con. | 10L | 6-21/4x5	27.3 | 268.0 | 106-3200	4 | 4.5 | L- | Sch- | Ge. | Mor- | CL- | Pour. | 21/4x1/4
Pague.....	8.85	131 1/2	3226.00	52	Prze. | Lyc. | 4H | 6-31/4x5	33.8 | 296.0 | 106-3200	4 | 4.5 | L- | Sch- | Ge. | Mor- | CL- | Pour. | 21/4x1/4
Peerless.....	6-66	116	2966 31x6.00	52	PrAl. | Con. | 10E | 6-31/4x4	25.35 | 199.2 | 63-2600	4 | 4.5 | L- | Sch- | Ge. | Mor- | CL- | Pour. | 21/4x1/4
Peerless.....	6-80	120	31x6.00	52	PrAl. | Con. | 10E | 6-31/4x5	25.35 | 232.0 | 70-2500	4 | 4.5 | L- | Sch- | Ge. | Mor- | CL- | Pour. | 21/4x1/4
Peerless.....	8-69	132 1/2	3070 33x6.20	53	PrAl. | Con. | 10E | 6-31/4x5	28.4 | 288.6 | 80-2800	4 | 4.5 | L- | Sch- | Ge. | Mor- | CL- | Pour. | 21/4x1/4
Pierce Arrow....	36	138	3336.75	45	PrAl. | Own. | 6-4x3/4x5	33.8 | 414.7 | 100-2600	3 | 4.35 | L- | Sch- | Ge. | Mor- | CL- | Pour. | 21/4x1/4
Pierce Arrow....	81	130	3236.00	43	PrAl. | Own. | 6-4x3/4x5	28.6 | 288.6 | 75-3000	3 | 4.6 | L- | Sch- | Ge. | Mor- | CL- | Pour. | 21/4x1/4
Pontiac.....	110	1126 294x.75	38.7	Prze. | Own. | 6-31/4x3/4	25.3 | 187.0 | 37-2400	3 | 4.6 | L- | Sch- | Ge. | Mor- | CL- | Pour. | 21/4x1/4	
Reo.....	Wolverine Flying Cloud	115	285x.25	38	Prze. | Con. | 16E | 6-31/4x4	25.2 | 199.0 | 73-2800	4 | 4.8 | L- | Sch- | Ge. | Mor- | CL- | Pour. | 21/4x1/4
Roamer.....	8-78	120	306x.75	52	Prze. | Own. | 6-31/4x5	25.2 | 249.0 | 73-2800	4 | 4.8 | L- | Sch- | Ge. | Mor- | CL- | Pour. | 21/4x1/4
Roamer.....	8-80	126	3100 32x6.00	52	Prze. | Lyc. | 4H | 6-31/4x4	25.2 | 229.7 | 62-2800	4 | 4.9 | L- | Sch- | Ge. | Mor- | CL- | Pour. | 21/4x1/4
Roamer.....	8-88	136	3336.75	45	Prze. | Lyc. | 4H | 6-31/4x4	33.8 | 288.6 | 84-2900	4 | 5.0 | L- | Sch- | Ge. | Mor- | CL- | Pour. | 21/4x1/4
Rolls Royce Silver Ghost	143 1/2	3900 33x6.75	39	PrAl. | Own. | 6-4x3/4x5	48.6 | 454.0 | 75-2400	3 | 4.6 | L- | Sch- | Ge. | Mor- | CL- | Pour. | 21/4x1/4	
Rolls Royce New Phantom	143 1/2	3900 33x6.75	42	PrAl. | Own. | 6-4x3/4x5	43.3 | 468.0 | 100-3000	3 | 4.7 | L- | Sch- | Ge. | Mor- | CL- | Pour. | 21/4x1/4	
Star.....	H	107	285x.25	35	PrAl. | Con. | 16E | 6-31/4x4	25.2 | 199.0 | 73-2800	4 | 4.8 | L- | Sch- | Ge. | Mor- | CL- | Pour. | 21/4x1/4
Stearns Knight.....	J	137	32x6.75	35	Prze. | Own. | 6-31/4x5	39.2 | 385.0 | 112-2800	4 | 5.0 | L- | Sch- | Ge. | Mor- | CL- | Pour. | 21/4x1/4
Stearns Knight.....	F6-85	145	32x6.75	35	Prze. | Own. | 6-31/4x4	39.2 | 385.0 | 112-2800	4 | 5.0 | L- | Sch- | Ge. | Mor- | CL- | Pour. | 21/4x1/4
Studebaker.....	Dictator	113	2330 32x6.20	35	Prze. | Own. | 6-31/4x4	27.3 | 242.0 | 50-2200	3 | 4.50 | L- | Sch- | Ge. | Mor- | CL- | Pour. | 21/4x1/4
Studebaker.....	President	120	2622.7 31x6.25	44.5	PrAl. | Own. | 6-31/4x5	36.4 | 334.0 | 75-2400	4 | 4.25 | L- | Sch- | Ge. | Mor- | CL- | Pour. | 21/4x1/4
Stutz.....	BB	131-145	31x6.20	48	PrAl. | Own. | 6-4x3/4x5	36.4 | 313.0 | 100-3000	4 | 4.9 | L- | Sch- | Ge. | Mor- | CL- | Pour. | 21/4x1/4
Stutz.....	BB	131-145	32x6.20	48	Myer. | Own. | 6-31/4x4/2	33.6 | 289.6 | 115-3600	3 | 5.0 | L- | Sch- | Ge. | Mor- | CL- | Pour. | 21/4x1/4
Valie.....	Std. 50	112	2081 32x6.00	34	Prze. | Own. | 6-31/4x4/4	23.4 | 186 | 48-2600	3 | 4.7 | L- | Sch- | Ge. | Mor- | CL- | Pour. | 21/4x1/4
Valie.....	6-66	118	2254.0 32x6.00	38	Prze. | Own. | 6-31/4x4/4	24.4 | 221 | 50-3000	3 | 4.53 | L- | Sch- | Ge. | Mor- | CL- | Pour. | 21/4x1/4
Valie.....	6-77	125	2574.0 32x6.20	44	Prze. | Lyc. | 8-31/4x4/2	33.8 | 299 | 90-3200	4 | 5.0 | L- | Sch- | Ge. | Mor- | CL- | Pour. | 21/4x1/4
Willys Knight.....	Sid. 6	109 1/2	295x.50	37.2	PrAl. | Own. | 6-21/4x3/4	20.7 | 187.6 | 45-3000	4 | 5.5 | L- | Sch- | Ge. | Mor- | CL- | Pour. | 21/4x1/4
Willys Knight.....	Great 6	126-135	32x6.00	44.5	PrAl. | Own. | 6-31/4x4/4	27.3 | 235.0 | 70-3200	4 | 5.5 | L- | Sch- | Ge. | Mor- | CL- | Pour. | 21/4x1/4
Willys Knight.....	Spec. 6	113 1/4	31x6.00	47	PrAl. | Own. | 6-21/4x4/4	20.7 | 173.0 | 53-3000	4 | 5.5 | L- | Sch- | Ge. | Mor- | CL- | Pour. | 21/4x1/4

Sch—Schebler.

Sep—Separate.

SiCh—Silicon-chrome Steel.

SpP—Splash with Pressure.

Spa—Spin.

Ste—Stewart.

Str—Stromberg.

T—"T" head.

Tex—Tetrolite.

Mar—Marvel.

Mor—Morse.

Ni—Nickel Iron.

NS—Nickel Steel.

Oe—Oil Cup.

PG—Pressure Gun.

PrAl—Pressure Alemite.

PrZe—Pressure Zerk.

Pu—Pump.

Ram—Ramsey.

L—"L" head.

I—in head.

J—In head.

Job—Johnson.

d—Wrist Pin.

Brown.

Bijur.

St.

Duraluminum.

Die Cast.

Timing Gear Case.

F—"F" Head, intake in top exhaust on side.

FA—Drop forged heat treated aluminum alloy.

FS—Forged Steel.

Ge—Gear.

GE—General Electric.

I—In head.

Ball—Ball & Ball.

Vee—Vee.

C—Centrifugally Cast.

Car—Carter.

CaS—Carbon Steel.

Coleron.

Chain.

Chrome Nickel.

Cl—Cast Iron.

CoCh—Cobalt Chrome.

Continent.

Chrome Silica Manganese.

CSM—

Circulating Splash.

CP—

Wrist Pin.

DC—

Pour.

Str. 1/2

Mechanical Specifications of 1928 Passenger Cars—Continued from preceding page

CAR MAKE AND MODEL	CLUTCH	GEARSET	UNI- VERS- ALS	FRONT AXLE		REAR AXLE		DRIVE	BRAKES	WHEELS	RIMS	STEERING GEAR	SPRINGS			ELECTRIC SYSTEM						
				Type	Make	Type	Make						Length and Width (In.)	Width and Height (In.)	Length and Width (In.)	Length and Width (In.)	Length and Width (In.)	Spark Centro- Type	Make	Starter Engagement	GEN. AND STARTER	BATTERY
Auburn.....76 Long 8F.	P.	War.	U.	m-U-P.	Col.	7	2	Col.	1 $\frac{1}{2}$ F.	4.9	SP.	I-F.	1 $\frac{3}{4}$ E.T.	A.	Bim.	Fire.	18x	Ross.	C.L.	S.	Hours Capacity	
Auburn.....88 Long 9C.	P.	War.	U.	m-U-P.	Col.	7	2	Col.	1 $\frac{1}{2}$ F.	4.7	SP.	I-F.	1 $\frac{3}{4}$ E.T.	A.	Bim.	Fire.	18x	Ross.	C.L.	S.	6-90	
Auburn.....115 Long 10A.	D.	War.	U.	m-U-P.	Col.	7	2	Col.	1 $\frac{1}{2}$ F.	4.45	SP.	I-F.	1 $\frac{3}{4}$ E.T.	A.	Bim.	Fire.	18x	Ross.	C.L.	S.	6-90	
Buick.....115 Own.....D.	Own.	U.	m-Own.	Own.	7 $\frac{1}{2}$	2 $\frac{1}{2}$	Own.	3 $\frac{1}{2}$ F.	4.9*	tt.	E-F.	M.	1 $\frac{3}{4}$ E.T.-I.R.	A.	Jax.	21x4 $\frac{1}{2}$	Jac.	W&N.	S.	56 $\frac{3}{4}$ x2 $\frac{1}{2}$		
Buick.....120, 128 Own.....D.	Own.	U.	m-Own.	Own.	7 $\frac{1}{2}$	2 $\frac{1}{2}$	Own.	3 $\frac{1}{2}$ F.	4.72*	tt.	E-F.	M.	2	I.R.	A.	Jax.	21x4 $\frac{1}{2}$	Jac.	W&N.	S.	56 $\frac{3}{4}$ x2 $\frac{1}{2}$	
Cadillac.....341 Own.....D.	Own.	U.	m-Spi.	Own.	5	2 $\frac{1}{2}$	Own.	5 $\frac{1}{4}$	2 $\frac{1}{2}$	Own.	SD.	B-F.	M.	2 $\frac{1}{2}$ E.	A.	Jax.	20x6	W&S.	36 $\frac{1}{4}$ x2 $\frac{1}{2}$	C.	48x2 $\frac{1}{2}$	
Chandler.....Big 6 Own.....D.	Own.	U.	m-Spi.	Own.	5	2 $\frac{1}{2}$	Own.	5 $\frac{1}{4}$	2 $\frac{1}{2}$	Own.	SD.	E-F.	M.	2 $\frac{1}{2}$ E.	A.	Jax.	20x4 $\frac{1}{2}$	W&S.	36 $\frac{1}{4}$ x2 $\frac{1}{2}$	C.	48x2 $\frac{1}{2}$	
Chandler.....Spe. 6 B&B 9QL P.	Own.	U.	m-Spi.	Own.	5	2 $\frac{1}{2}$	Own.	5 $\frac{1}{4}$	2 $\frac{1}{2}$	Own.	SD.	E-F.	M.	2 $\frac{1}{2}$ E.	A.	Jax.	20x4 $\frac{1}{2}$	W&S.	36 $\frac{1}{4}$ x2 $\frac{1}{2}$	C.	48x2 $\frac{1}{2}$	
Chandler.....Roy. 8 B&B 10Q. P.	Own.	U.	m-Spi.	Own.	5	2 $\frac{1}{2}$	Own.	5 $\frac{1}{4}$	2 $\frac{1}{2}$	Own.	SD.	E-F.	M.	2 $\frac{1}{2}$ E.	A.	Jax.	20x4 $\frac{1}{2}$	W&S.	36 $\frac{1}{4}$ x2 $\frac{1}{2}$	C.	48x2 $\frac{1}{2}$	
Chevrolet.....52 Roe. P.	Own.	U.	m-Spi.	Own.	5 $\frac{1}{4}$	2 $\frac{1}{2}$	Own.	5 $\frac{1}{4}$	2 $\frac{1}{2}$	Own.	SD.	E-F.	M.	2 $\frac{1}{2}$ E.	A.	Jax.	20x4 $\frac{1}{2}$	W&S.	36 $\frac{1}{4}$ x2 $\frac{1}{2}$	C.	48x2 $\frac{1}{2}$	
Chrysler.....62 B&B P.	Own.	U.	m-Spi.	Own.	7 $\frac{1}{2}$	2	Own.	1 $\frac{1}{2}$ F.	3.82	SP.	B-F.	M.	2	E-T.	A.	Jax.	20x4 $\frac{1}{2}$	W&S.	36 $\frac{1}{4}$ x2 $\frac{1}{2}$	C.	48x2 $\frac{1}{2}$	
Chrysler.....72 P.	Own.	U.	m-Spi.	Own.	7	2	Own.	1 $\frac{1}{2}$ F.	4.70	SP.	E-R.	M.	2	E-T.	A.	Jax.	20x4 $\frac{1}{2}$	W&S.	36 $\frac{1}{4}$ x2 $\frac{1}{2}$	C.	48x2 $\frac{1}{2}$	
Cunningham.....30 Long Own.....D.	Own.	U.	m-U-P.	Own.	7	2	Own.	1 $\frac{1}{2}$ F.	4.60	SP.	E-F.	M.	2	E-T.	A.	Jax.	20x4 $\frac{1}{2}$	W&S.	36 $\frac{1}{4}$ x2 $\frac{1}{2}$	C.	48x2 $\frac{1}{2}$	
Davis.....99 B&B 10QL P.	Own.	U.	m-Spi.	Own.	6	2	Own.	1 $\frac{1}{2}$ F.	3.70	SP.	E-F.	M.	1 $\frac{1}{2}$ E.T.	A.	Jax.	18x4	W&S.	36 $\frac{1}{4}$ x2 $\frac{1}{2}$	C.	48x2 $\frac{1}{2}$		
Dodge.....124 B&B 100Q. P.	Own.	U.	m-Cle.	Col.	7	2	Col.	1 $\frac{1}{2}$ F.	4.45	SP.	E-F.	H.	1 $\frac{1}{2}$ E.T.	A.	Jax.	18x4	W&S.	36 $\frac{1}{4}$ x2 $\frac{1}{2}$	C.	48x2 $\frac{1}{2}$		
Dodge.....128 Own.....P.	Own.	U.	m-Mee.	Col.	7	2	Col.	1 $\frac{1}{2}$ F.	4.45	SP.	E-F.	H.	1 $\frac{1}{2}$ E.T.	A.	Jax.	18x4	W&S.	36 $\frac{1}{4}$ x2 $\frac{1}{2}$	C.	48x2 $\frac{1}{2}$		
Dodge.....Vict. 6 Own.....D.	Own.	U.	m-Mee.	Col.	7	2	Col.	1 $\frac{1}{2}$ F.	4.45	SP.	E-F.	H.	1 $\frac{1}{2}$ E.T.	A.	Jax.	18x4	W&S.	36 $\frac{1}{4}$ x2 $\frac{1}{2}$	C.	48x2 $\frac{1}{2}$		
DuPont.....Senior 6. Own.....D.	Own.	U.	m-Spi.	Own.	6	2	Own.	1 $\frac{1}{2}$ F.	4.23	SP.	I-F.	M.	2	E-T.	A.	Jax.	18x4	W&S.	36 $\frac{1}{4}$ x2 $\frac{1}{2}$	C.	48x2 $\frac{1}{2}$	
Durant.....55 Own.....P.	Own.	U.	m-Cle.	Col.	7	2	Col.	1 $\frac{1}{2}$ F.	4.54	SP.	E-F.	H.	2	E-T.	A.	Jax.	20x4	W&S.	36 $\frac{1}{4}$ x2 $\frac{1}{2}$	C.	48x2 $\frac{1}{2}$	
Durant.....65 Own.....P.	Own.	U.	m-Mee.	Col.	6	2	Col.	1 $\frac{1}{2}$ F.	4.54	SP.	E-F.	H.	2	E-T.	A.	Jax.	20x4	W&S.	36 $\frac{1}{4}$ x2 $\frac{1}{2}$	C.	48x2 $\frac{1}{2}$	
Durant.....75 Own.....P.	Own.	U.	m-Mee.	Col.	6	2	Col.	1 $\frac{1}{2}$ F.	4.87	SP.	E-F.	H.	2	E-T.	A.	Jax.	20x4	W&S.	36 $\frac{1}{4}$ x2 $\frac{1}{2}$	C.	48x2 $\frac{1}{2}$	
Elcar.....6.70 Long 8F. P.	Own.	U.	m-G. U.	Sal.	7	1 $\frac{1}{2}$	Sal.	1 $\frac{1}{2}$ F.	4.44	SP.	I-F.	M.	1 $\frac{1}{2}$ E.T.	A.	Jax.	18x4	W&S.	36 $\frac{1}{4}$ x2 $\frac{1}{2}$	C.	48x2 $\frac{1}{2}$		
Elcar.....8.75 Long 8F. P.	Own.	U.	m-G. U.	Sal.	7	1 $\frac{1}{2}$	Sal.	1 $\frac{1}{2}$ F.	4.9	SP.	E-F.	H.	1 $\frac{1}{2}$ E.T.	A.	Jax.	18x4	W&S.	36 $\frac{1}{4}$ x2 $\frac{1}{2}$	C.	48x2 $\frac{1}{2}$		
Elcar.....8.82 Long 10A-I P.	Own.	U.	m-G. U.	Sal.	6	2	Sal.	2 $\frac{1}{2}$ F.	4.45	SP.	E-F.	H.	1 $\frac{1}{2}$ E.T.	A.	Jax.	18x4	W&S.	36 $\frac{1}{4}$ x2 $\frac{1}{2}$	C.	48x2 $\frac{1}{2}$		
Erskine.....8-32 Long 10A-I P.	Own.	U.	m-Spi.	Sal.	7	1 $\frac{1}{2}$	Sal.	2 $\frac{1}{2}$ F.	4.7	SP.	E-F.	H.	2	E-T.	A.	Jax.	18x4	W&S.	36 $\frac{1}{4}$ x2 $\frac{1}{2}$	C.	48x2 $\frac{1}{2}$	
Essex.....6. Own.....P.	Own.	U.	m-Spi.	Tim.	6	2	Tim.	2 $\frac{1}{2}$ F.	4.82	SP.	I-F.	M.	2	E-T.	A.	Jax.	20x4	W&S.	36 $\frac{1}{4}$ x2 $\frac{1}{2}$	C.	48x2 $\frac{1}{2}$	
Falcon Knight.....12 B&B....P.	Own.	U.	m-Mee.	Own.	2	2	Own.	1 $\frac{1}{2}$ F.	4.78	SP.	I-F.	M.	1 $\frac{1}{2}$ E.T.	A.	Jax.	20x3 $\frac{1}{2}$	W&S.	36 $\frac{1}{4}$ x2 $\frac{1}{2}$	C.	48x2 $\frac{1}{2}$		
Ford.....Franklin. A. Own.....D.	Own.	U.	m-Mee.	Own.	2.7	3	Own.	1 $\frac{1}{2}$ F.	5.1	SP.	I-F.	M.	1 $\frac{1}{2}$ E.T.	A.	Jax.	18x4	W&S.	36 $\frac{1}{4}$ x2 $\frac{1}{2}$	C.	48x2 $\frac{1}{2}$		
Gardner.....75 B&B 9Q. P.	Own.	U.	m-Cle.	Col.	7	2	Col.	1 $\frac{1}{2}$ F.	4.88	SP.	I-F.	M.	1 $\frac{1}{2}$ E.T.	A.	Jax.	19x2 $\frac{1}{2}$	W&S.	36 $\frac{1}{4}$ x2 $\frac{1}{2}$	C.	48x2 $\frac{1}{2}$		
Gardner.....85 B&B 9Q. P.	Own.	U.	m-G. U.	Col.	7	2	Col.	1 $\frac{1}{2}$ F.	4.91	SP.	I-F.	M.	1 $\frac{1}{2}$ E.T.	A.	Jax.	19x2 $\frac{1}{2}$	W&S.	36 $\frac{1}{4}$ x2 $\frac{1}{2}$	C.	48x2 $\frac{1}{2}$		
Gardner.....95 B&B 10QL P.	Own.	U.	m-Cle.	Col.	7	2	Col.	1 $\frac{1}{2}$ F.	4.91	SP.	I-F.	M.	1 $\frac{1}{2}$ E.T.	A.	Jax.	19x2 $\frac{1}{2}$	W&S.	36 $\frac{1}{4}$ x2 $\frac{1}{2}$	C.	48x2 $\frac{1}{2}$		
Hudson.....OAS. A. B&B....P.	Own.	U.	m-Spi.	Own.	0.2	2 $\frac{1}{2}$	Own.	1 $\frac{1}{2}$ F.	4.40	SP.	I-F.	M.	2	E-T.	A.	Jax.	19x2 $\frac{1}{2}$	W&S.	36 $\frac{1}{4}$ x2 $\frac{1}{2}$	C.	48x2 $\frac{1}{2}$	
Hudson.....Hupmobile. M-8. E-4. Long....P.	Own.	U.	m-Mee.	Own.	0.2	2 $\frac{1}{2}$	Own.	1 $\frac{1}{2}$ F.	4.45	SP.	I-F.	M.	2	E-T.	A.	Jax.	19x2 $\frac{1}{2}$	W&S.	36 $\frac{1}{4}$ x2 $\frac{1}{2}$	C.	48x2 $\frac{1}{2}$	
Jordan.....R. Long....P.	Own.	U.	m-Spi.	Col.	7	2	Col.	1 $\frac{1}{2}$ F.	4.6	SP.	E-F.	H.	1 $\frac{1}{2}$ E.T.	A.	Jax.	19x2 $\frac{1}{2}$	W&S.	36 $\frac{1}{4}$ x2 $\frac{1}{2}$	C.	48x2 $\frac{1}{2}$		
Jordan.....J. Long....P.	Own.	U.	m-Spi.	Col.	7	2	Col.	1 $\frac{1}{2}$ F.	4.73	SP.	E-F.	H.	1 $\frac{1}{2}$ E.T.	A.	Jax.	19x2 $\frac{1}{2}$	W&S.	36 $\frac{1}{4}$ x2 $\frac{1}{2}$	C.	48x2 $\frac{1}{2}$		
Kissel.....6-70 B&B 9QL P.	Own.	U.	m-Mee.	Col.	7	2	Col.	1 $\frac{1}{2}$ F.	4.62	SP.	E-F.	H.	1 $\frac{1}{2}$ E.T.	A.	Jax.	19x2 $\frac{1}{2}$	W&S.	36 $\frac{1}{4}$ x2 $\frac{1}{2}$	C.	48x2 $\frac{1}{2}$		
Kissel.....8-80 S B&B 10QL P.	Own.	U.	m-Mee.	Col.	7	2	Col.	1 $\frac{1}{2}$ F.	4.60	SP.	E-F.	H.	2	E-T.	A.	Jax.	19x2 $\frac{1}{2}$	W&S.	36 $\frac{1}{4}$ x2 $\frac{1}{2}$	C.	48x2 $\frac{1}{2}$	
Kissel.....8-89 B&B 11QL P.	Own.	U.	m-Mee.	Tim.	6	2	Tim.	2 $\frac{1}{2}$ F.	4.89	SP.	E-F.	H.	2	E-T.	A.	Jax.	19x2 $\frac{1}{2}$	W&S.	36 $\frac{1}{4}$ x2 $\frac{1}{2}$	C.	48x2 $\frac{1}{2}$	
La Salle.....Own. dp. Owa.	Own.	U.	m-Spi.	Own.	7	1 $\frac{1}{2}$	2 $\frac{1}{2}$	Own.	2 $\frac{1}{2}$ F.	4.54	SP.	I-F.	M.	2	E-T.	A.	Jax.	20x4 $\frac{1}{2}$	W&S.	36 $\frac{1}{4}$ x2 $\frac{1}{2}$	C.	48x2 $\frac{1}{2}$
Lincoln.....Long....P.	Own.	U.	m-Spi.	Own.	7	1 $\frac{1}{2}$	2 $\frac{1}{2}$	Own.	2 $\frac{1}{2}$ F.	4.55	SP.	I-F.	M.	2	E-T.	A.	Jax.	20x4 $\frac{1}{2}$	W&S.	36 $\frac{1}{4}$ x2 $\frac{1}{2}$	C.	48x2 $\frac{1}{2}$
Lincoln.....M-8. E-4. Long....P.	Own.	U.	m-Spi.	Own.	7	1 $\frac{1}{2}$	2 $\frac{1}{2}$	Own.	2 $\frac{1}{2}$ F.	4.55	SP.	I-F.	M.	2	E-T.	A.	Jax.	20x4 $\frac{1}{2}$	W&S.	36 $\frac{1}{4}$ x2 $\frac{1}{2}$	C.	48x2 $\frac{1}{2}$
Lincoln.....J. Long....P.	Own.	U.	m-Spi.	Own.	7	1 $\frac{1}{2}$	2 $\frac{1}{2}$	Own.	2 $\frac{1}{2}$ F.	4.55	SP.	I-F.	M.	2	E-T.	A.	Jax.	20x4 $\frac{1}{2}$	W&S.	36 $\frac{1}{4}$ x2 $\frac{1}{2}$	C.	48x2 $\frac{1}{2}$
Lincoln.....M-8. E-4. Long....P.	Own.	U.	m-Spi.	Own.	7	1 $\frac{1}{2}$	2 $\frac{1}{2}$	Own.	2 $\frac{1}{2}$ F.	4.55	SP.	I-F.	M.	2	E-T.	A.	Jax.	20x4 $\frac{1}{2}$	W&S.	36 $\frac{1}{4}$ x2 $\frac{1}{2}$	C.	48x2 $\frac{1}{2}$
Lincoln.....M-8. E-4. Long....P.	Own.	U.	m-Spi.	Own.	7	1 $\frac{1}{2}$	2 $\frac{1}{2}$	Own.	2 $\frac{1}{2}$ F.	4.55	SP.	I-F.	M.	2	E-T.	A.	Jax.	20x4 $\frac{1}{2}$	W&S.	36 $\frac{1}{4}$ x2 $\frac{1}{2}$	C.	48x2 $\frac{1}{2}$
Lincoln.....M-8. E-4. Long....P.	Own.	U.	m-Spi.	Own.	7	1 $\frac{1}{2}$	2 $\frac{1}{$															

***It prevents
Spark Plug Paralysis***

NINE out of ten customers who come into your store need a new set of spark plugs—but they don't know it.

For 9 cars out of 10 are crippled by spark plug paralysis—carbon lodges in the crevices of the plugs and forms “leak-holes” through which part of the current escapes.

Secretly the vitality of the plug is undermined. Secretly the power of the engine is crippled. Usually the car driver barely notices the oh-so-gradual loss of pep and power.

Any new set of spark plugs is healthy—*temporarily*. But now comes a spark plug that remains healthy—one that defies spark plug paralysis. It is the new Original-Bosch Pyro-Action Spark Plug.

***How Pyro-Action Overcomes
Spark Plug Paralysis***

Pyro-Action is the technical term



***What is the most common cause of
spark plug troubles?***

We recently asked 1000 motorists. 61% said fouling. Pyro-Action shields the insulator of the Original-Bosch plug from fouling by burning away carbon as fast as it touches the stone.



***-and builds new plug
sales for dealers***

for the combination of factors in this new plug which enables it to ward off spark plug paralysis.

One factor that makes Pyro-Action possible is the insulator of the plug. It absorbs and retains sufficient heat to burn off excessive oil, or liquid fuel before it has time to form carbon.

This spark plug retains its firing efficiency during the life of the car. It maintains that reliable, penetrating spark usually enjoyed only when a car is new. It saves gasoline, makes the engine run smoother, and gives more power not merely for a few thousand miles but for a longer period of time than ever before.

The story of Spark Plug Paralysis and how it is defied by the Pyro-Action Spark Plug, will create for you new spark plug sales, new profits and new friends. For you can well imagine how every customer is going to boast to his friends about the new pep in his car since you sold him a set of Original-Bosch Pyro-Action Spark Plugs . . . mail coupon for full information.

Robert Bosch Magneto Co., Inc.,
3601-H Queens Boulevard, Long
Island City, New York. (No
connection with any other com-
pany or firm bearing the name
“Bosch.”)

***The Original
Bosch
Pyro-Action
SPARK PLUGS***

Robert Bosch Magneto Co., Inc.
3601-H Queens Boulevard, Long Island
City, N. Y.

Please send full facts about Original-Bosch Pyro-Action Spark Plugs and about your dealer franchise for progressive accessory dealers.

Name _____

Address _____

PURRS AND PINGS



Pretzellan Passionals Preferred

PHILADELPHIA—We like best of all the "Passionate Pretzels" column in MOTOR AGE. We are referring to the very unique individuals who pose for the illustrations on the Course in Salesmanship. In our opinion, the soulful interpretation of "The Reward" should be an inspiration to every salesman.—*Constant Female Reader.*

French Praise is the Same in English

JACKSON, MICH.—I value MOTOR AGE highly and do not desire to lose any of the issues. I have read it with a great deal of pleasure for a number of years. I congratulate you on the continued excellence of your publication.—*Fred W. French.*

We Blame It on the Christmas Mail

STANLEY, WIS.—We used to get our copy of MOTOR AGE on Saturday but the last half dozen copies have not arrived until Monday. Now, I like it so well that I read it from cover to cover and would like to get it on Saturday so that I can read it on Sunday when I have lots of time. Better send it by Air Mail.—*M. R. Shock.*

Being the Best You May Expect Variety

COFFEEVILLE, MISS.—Please do not let us miss an issue. There is no motor magazine as good as MOTOR AGE, but we wish you would print more stories of small town dealers.—*Charles D. Blair.*

An All-Around Aid

ARCADIA, FLA.—We like your publication very much. It is helpful both to the service and sales end of our business.—*Carlton-Anderson, Inc.*

This Beats All

RHAME, N. D.—Nothing beats the MOTOR AGE.—*B. J. McIntyre.*

LETTERS to the editor from those whose "attention has been called"; from those who point with pride and those who view with alarm, from those who are easy to please and those who are hard to please; from those who are happy when they find a good thing and those who are happier when they find something they consider not so good; from those who boast and those who knock; from those who see the doughnut and those who see the hole; in other words, Dear Subscriber, from you and you and you—as well as from the man who borrows your copy of MOTOR AGE or reads it over your shoulder.

Laudatory Language from London

LONDON, ENG.—May I take this opportunity of congratulating you on the improvement which has taken place in your publication within the last few months. I might say that I have found much in your paper, which, apart from being interesting, has been very instructive and helpful to me during the course of my daily job of work.—*G. A. Royston.*

Ruby's Rubaiyat

DECORAH, IOWA—I think I shall soon join the rank and file of mechanics, if you continue to edit such an interesting magazine. I enjoy it as



much as my husband does, especially the answers to Purrs and Pings.—*Ruby W. Lee.*

Roll Them Three Bones Thitherward

ULYSSES, NEB.—Three for fifty-two; I will roll you my three cartwheels so you can roll me fifty-two issues of good old MOTOR AGE. It's good from cover to cover.—*Henry L. Cordes.*

Meow! Meow!

PHILADELPHIA—Now don't get me wrong and mistake our office for a Mid-Victorian literary guild—just the usual mill. But amongst the secretaries and would-be secretaries, it is quite the thing to be blue-stocking, not to say high-brow. We get a lot of trade papers, and just by looking at the dull pages of the majority these girls know the papers are high-brow, so they don't have to read them. But this remark is often overheard, "Oh, that junk they publish in MOTOR AGE. Why do they do it? Why does anyone subscribe to it?" But Mr. Staff, do they gobble it up? Sometimes I think perhaps the only kick they ever got was from Hot Dogs, and the snappy captions sprinkled throughout MOTOR AGE. And does it burn 'em up to find only "Purrs" on the Purrs and Pings page? Now don't print my name, just call me —*The Office Cat.*

But We Shall, Just Wait and See

BAYARD, IOWA—I don't know where you could improve on MOTOR AGE. It has done me a lot of good.—*D. G. Hughes.*

He is Done With Doing Without

ONTARIO, CAN.—I have done without MOTOR AGE for one year, but do not want to be without it any longer.—*J. W. Mayhew.*

May We Never Step on the Brake

EAST NORWALK, CONN.—I wonder how you ever collect so much information every week to fill up the book. You sure must step on the gas.—*Capt. H. E. Lockwood.*

A Rooter for R. C. H.

CANTON, OHIO—I am a subscriber of MOTOR AGE and your Readers' Clearing House is very helpful.—*George Picolet.*

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